



Sequence Listing

<110> Genentech, Inc.
Eaton, Dan L.
Filvaroff, Ellen
Gerritsen, Mary E.
Goddard, Audrey
Godowski, Paul J.
Grimaldi, Christopher J.
Gurney, Austin L.
Watanabe, Colin K.
Wood, William I.

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Cys Arg Leu Leu Gly Leu Ser Leu Ala Gly Lys Asp Gln Val Glu
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<211> 350
<212> PRT
<213> Homo Sapien

<400> 8
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Pro Val Lys Pro Gly Pro Ala Leu Ser Tyr Pro Gln Glu Glu Ala
35 40 45
Thr Leu Asn Glu Met Phe Arg Glu Val Glu Glu Leu Met Glu Asp
50 55 60
Thr Gln His Lys Leu Arg Ser Ala Val Glu Glu Met Glu Ala Glu
65 70 75
Glu Ala Ala Ala Lys Ala Ser Ser Glu Val Asn Leu Ala Asn Leu
80 85 90
Pro Pro Ser Tyr His Asn Glu Thr Asn Thr Asp Thr Lys Val Gly
95 100 105
Asn Asn Thr Ile His Val His Arg Glu Ile His Lys Ile Thr Asn
110 115 120
Asn Gln Thr Gly Gln Met Val Phe Ser Glu Thr Val Ile Thr Ser
125 130 135
Val Gly Asp Glu Glu Gly Arg Arg Ser His Glu Cys Ile Ile Asp
140 145 150
Glu Asp Cys Gly Pro Ser Met Tyr Cys Gln Phe Ala Ser Phe Gln
155 160 165
Tyr Thr Cys Gln Pro Cys Arg Gly Gln Arg Met Leu Cys Thr Arg
170 175 180

Asp	Ser	Glu	Cys	Cys	Gly	Asp	Gln	Leu	Cys	Val	Trp	Gly	His	Cys	
				185					190					195	
Thr	Lys	Met	Ala	Thr	Arg	Gly	Ser	Asn	Gly	Thr	Ile	Cys	Asp	Asn	
				200					205					210	
Gln	Arg	Asp	Cys	Gln	Pro	Gly	Leu	Cys	Cys	Ala	Phe	Gln	Arg	Gly	
				215					220					225	
Leu	Leu	Phe	Pro	Val	Cys	Thr	Pro	Leu	Pro	Val	Glu	Gly	Glu	Leu	
				230					235					240	
Cys	His	Asp	Pro	Ala	Ser	Arg	Leu	Leu	Asp	Leu	Ile	Thr	Trp	Glu	
				245					250					255	
Leu	Glu	Pro	Asp	Gly	Ala	Leu	Asp	Arg	Cys	Pro	Cys	Ala	Ser	Gly	
				260					265					270	
Leu	Leu	Cys	Gln	Pro	His	Ser	His	Ser	Leu	Val	Tyr	Val	Cys	Lys	
				275					280					285	
Pro	Thr	Phe	Val	Gly	Ser	Arg	Asp	Gln	Asp	Gly	Glu	Ile	Leu	Leu	
				290					295					300	
Pro	Arg	Glu	Val	Pro	Asp	Glu	Tyr	Glu	Val	Gly	Ser	Phe	Met	Glu	
				305					310					315	
Glu	Val	Arg	Gln	Glu	Leu	Glu	Asp	Leu	Glu	Arg	Ser	Leu	Thr	Glu	
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Glu	Met	Ala	Leu	Gly	Glu	Pro	Ala	Ala	Ala	Ala	Ala	Ala	Leu	Leu	
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 <212> DNA
 <213> Homo Sapien

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 ttcaatctgc aaatctatgg ggtcctgggg ctcttctgga cccttaactg 200
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 <211> 321
 <212> PRT
 <213> Homo Sapien

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 50 55 60
 Leu Phe Trp Thr Leu Asn Trp Val Leu Ala Leu Gly Gln Cys Val
 65 70 75
 Leu Ala Gly Ala Phe Ala Ser Phe Tyr Trp Ala Phe His Lys Pro
 80 85 90
 Gln Asp Ile Pro Thr Phe Pro Leu Ile Ser Ala Phe Ile Arg Thr
 95 100 105
 Leu Arg Tyr His Thr Gly Ser Leu Ala Phe Gly Ala Leu Ile Leu
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Lys	Leu	Arg	Gly	Val	Gln	Asn	Pro	Val	Ala	Arg	Cys	Ile	Met	Cys	
				140					145					150	
Cys	Phe	Lys	Cys	Cys	Leu	Trp	Cys	Leu	Glu	Lys	Phe	Ile	Lys	Phe	
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Phe	Cys	Val	Ser	Ala	Lys	Asn	Ala	Phe	Met	Leu	Leu	Met	Arg	Asn	
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Ile	Val	Arg	Val	Val	Val	Leu	Asp	Lys	Val	Thr	Asp	Leu	Leu	Leu	
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				230					235					240	
Lys	Ser	Pro	His	Leu	Asn	Tyr	Tyr	Trp	Leu	Pro	Ile	Met	Thr	Ser	
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Ile	Leu	Gly	Ala	Tyr	Val	Ile	Ala	Ser	Gly	Phe	Phe	Ser	Val	Phe	
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Gly	Met	Cys	Val	Asp	Thr	Leu	Phe	Leu	Cys	Phe	Leu	Glu	Asp	Leu	
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Glu	Arg	Asn	Asn	Gly	Ser	Leu	Asp	Arg	Pro	Tyr	Tyr	Met	Ser	Lys	
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Ser	Leu	Leu	Lys	Ile	Leu	Gly	Lys	Lys	Asn	Glu	Ala	Pro	Pro	Asp	
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 <211> 1901
 <212> DNA
 <213> Homo Sapien

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<210> 12

<211> 457
 <212> PRT
 <213> Homo Sapien

<400> 12

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Ala	Ser	Arg	Asn	Ser	Thr	Val	Ser	Arg	Leu	Ile	Phe	Thr	Phe	Phe	35	40	45	
Leu	Phe	Leu	Gly	Val	Leu	Val	Ser	Ile	Ile	Met	Leu	Ser	Pro	Gly	50	55	60	
Val	Glu	Ser	Gln	Leu	Tyr	Lys	Leu	Pro	Trp	Val	Cys	Glu	Glu	Gly	65	70	75	
Ala	Gly	Ile	Pro	Thr	Val	Leu	Gln	Gly	His	Ile	Asp	Cys	Gly	Ser	80	85	90	
Leu	Leu	Gly	Tyr	Arg	Ala	Val	Tyr	Arg	Met	Cys	Phe	Ala	Thr	Ala	95	100	105	
Ala	Phe	Phe	Phe	Phe	Phe	Phe	Thr	Leu	Leu	Met	Leu	Cys	Val	Ser	110	115	120	
Ser	Ser	Arg	Asp	Pro	Arg	Ala	Ala	Ile	Gln	Asn	Gly	Phe	Trp	Phe	125	130	135	
Phe	Lys	Phe	Leu	Ile	Leu	Val	Gly	Leu	Thr	Val	Gly	Ala	Phe	Tyr	140	145	150	
Ile	Pro	Asp	Gly	Ser	Phe	Thr	Asn	Ile	Trp	Phe	Tyr	Phe	Gly	Val	155	160	165	
Val	Gly	Ser	Phe	Leu	Phe	Ile	Leu	Ile	Gln	Leu	Val	Leu	Leu	Ile	170	175	180	
Asp	Phe	Ala	His	Ser	Trp	Asn	Gln	Arg	Trp	Leu	Gly	Lys	Ala	Glu	185	190	195	
Glu	Cys	Asp	Ser	Arg	Ala	Trp	Tyr	Ala	Gly	Leu	Phe	Phe	Phe	Thr	200	205	210	
Leu	Leu	Phe	Tyr	Leu	Leu	Ser	Ile	Ala	Ala	Val	Ala	Leu	Met	Phe	215	220	225	
Met	Tyr	Tyr	Thr	Glu	Pro	Ser	Gly	Cys	His	Glu	Gly	Lys	Val	Phe	230	235	240	
Ile	Ser	Leu	Asn	Leu	Thr	Phe	Cys	Val	Cys	Val	Ser	Ile	Ala	Ala	245	250	255	
Val	Leu	Pro	Lys	Val	Gln	Asp	Ala	Gln	Pro	Asn	Ser	Gly	Leu	Leu	260	265	270	
Gln	Ala	Ser	Val	Ile	Thr	Leu	Tyr	Thr	Met	Phe	Val	Thr	Trp	Ser	275	280	285	
Ala	Leu	Ser	Ser	Ile	Pro	Glu	Gln	Lys	Cys	Asn	Pro	His	Leu	Pro				


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<210> 14
<211> 234
<212> PRT
<213> Homo Sapien

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Thr Gln Leu Met Ala Arg Ile Glu Ser Tyr Glu Gly Arg Glu Lys
                35                      40          45

Lys Gly Ile Ser Asp Val Arg Arg Thr Phe Cys Leu Phe Val Thr
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Phe Asp Leu Leu Phe Val Thr Leu Leu Trp Ile Ile Glu Leu Asn
                65                      70          75

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Val	Asn	Gly	Gly	Ile	Glu	Asn	Thr	Leu	Glu	Lys	Glu	Val	Met	Gln	
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				95					100					105	
Phe	Arg	Phe	Lys	Val	Leu	Ile	Leu	Ala	Tyr	Ala	Val	Cys	Arg	Leu	
				110					115					120	
Arg	His	Trp	Trp	Ala	Ile	Ala	Leu	Thr	Thr	Ala	Val	Thr	Ser	Ala	
				125					130					135	
Phe	Leu	Leu	Ala	Lys	Val	Ile	Leu	Ser	Lys	Leu	Phe	Ser	Gln	Gly	
				140					145					150	
Ala	Phe	Gly	Tyr	Val	Leu	Pro	Ile	Ile	Ser	Phe	Ile	Leu	Ala	Trp	
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Ile	Glu	Thr	Trp	Phe	Leu	Asp	Phe	Lys	Val	Leu	Pro	Gln	Glu	Ala	
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Glu	Glu	Glu	Asn	Arg	Leu	Leu	Ile	Val	Gln	Asp	Ala	Ser	Glu	Arg	
				185					190					195	
Ala	Ala	Leu	Ile	Pro	Gly	Gly	Leu	Ser	Asp	Gly	Gln	Phe	Tyr	Ser	
				200					205					210	
Pro	Pro	Glu	Ser	Glu	Ala	Gly	Ser	Glu	Glu	Ala	Glu	Glu	Lys	Gln	
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Asp	Ser	Glu	Lys	Pro	Leu	Leu	Glu	Leu							
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<210> 15
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 <212> DNA
 <213> Homo Sapien

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 tttaggaaca tgttttgctt ttttaaaata tatatatatta taagagatcc 2650
 tttcccattht attctgggaa gatgtttttc aaactcagag acaaggactt 2700
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<210> 16
 <211> 673
 <212> PRT
 <213> Homo Sapien

<400> 16
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 20 25 30
 Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
 35 40 45
 Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
 50 55 60
 Glu Asn Gly Ile Thr Met Leu Asp Ala Gly Ser Phe Ala Gly Leu
 65 70 75
 Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
 80 85 90
 Leu Pro Ser Gly Val Phe Gln Pro Leu Ala Asn Leu Ser Asn Leu
 95 100 105
 Asp Leu Thr Ala Asn Arg Leu His Glu Ile Thr Asn Glu Thr Phe
 110 115 120
 Arg Gly Leu Arg Arg Leu Glu Arg Leu Tyr Leu Gly Lys Asn Arg
 125 130 135
 Ile Arg His Ile Gln Pro Gly Ala Phe Asp Thr Leu Asp Arg Leu
 140 145 150
 Leu Glu Leu Lys Leu Gln Asp Asn Glu Leu Arg Ala Leu Pro Pro
 155 160 165

Leu Arg Leu Pro Arg	Leu Leu Leu Leu	Asp	Leu Ser His Asn Ser
170		175	180
Leu Leu Ala Leu Glu	Pro Gly Ile Leu	Asp Thr Ala Asn Val Glu	
185		190	195
Ala Leu Arg Leu Ala	Gly Leu Gly Leu	Gln Gln Leu Asp Glu Gly	
200		205	210
Leu Phe Ser Arg Leu	Arg Asn Leu His	Asp Leu Asp Val Ser Asp	
215		220	225
Asn Gln Leu Glu Arg	Val Pro Pro Val	Ile Arg Gly Leu Arg Gly	
230		235	240
Leu Thr Arg Leu Arg	Leu Ala Gly Asn	Thr Arg Ile Ala Gln Leu	
245		250	255
Arg Pro Glu Asp Leu	Ala Gly Leu Ala	Ala Leu Gln Glu Leu Asp	
260		265	270
Val Ser Asn Leu Ser	Leu Gln Ala Leu	Pro Gly Asp Leu Ser Gly	
275		280	285
Leu Phe Pro Arg Leu	Arg Leu Leu Ala	Ala Ala Arg Asn Pro Phe	
290		295	300
Asn Cys Val Cys Pro	Leu Ser Trp Phe	Gly Pro Trp Val Arg Glu	
305		310	315
Ser His Val Thr Leu	Ala Ser Pro Glu	Glu Thr Arg Cys His Phe	
320		325	330
Pro Pro Lys Asn Ala	Gly Arg Leu Leu	Leu Glu Leu Asp Tyr Ala	
335		340	345
Asp Phe Gly Cys Pro	Ala Thr Thr Thr	Thr Ala Thr Val Pro Thr	
350		355	360
Thr Arg Pro Val Val	Arg Glu Pro Thr	Ala Leu Ser Ser Ser Leu	
365		370	375
Ala Pro Thr Trp Leu	Ser Pro Thr Ala	Pro Ala Thr Glu Ala Pro	
380		385	390
Ser Pro Pro Ser Thr	Ala Pro Pro Thr	Val Gly Pro Val Pro Gln	
395		400	405
Pro Gln Asp Cys Pro	Pro Ser Thr Cys	Leu Asn Gly Gly Thr Cys	
410		415	420
His Leu Gly Thr Arg	His His Leu Ala	Cys Leu Cys Pro Glu Gly	
425		430	435
Phe Thr Gly Leu Tyr	Cys Glu Ser Gln	Met Gly Gln Gly Thr Arg	
440		445	450
Pro Ser Pro Thr Pro	Val Thr Pro Arg	Pro Pro Arg Ser Leu Thr	
455		460	465
Leu Gly Ile Glu Pro	Val Ser Pro Thr	Ser Leu Arg Val Gly Leu	
470		475	480

Gln Arg Tyr Leu	Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg
485	490	495
Leu Thr Tyr Arg	Asn Leu Ser Gly Pro	Asp Lys Arg Leu Val Thr
500	505	510
Leu Arg Leu Pro	Ala Ser Leu Ala Glu	Tyr Thr Val Thr Gln Leu
515	520	525
Arg Pro Asn Ala	Thr Tyr Ser Val Cys	Val Met Pro Leu Gly Pro
530	535	540
Gly Arg Val Pro	Glu Gly Glu Glu Ala	Cys Gly Glu Ala His Thr
545	550	555
Pro Pro Ala Val	His Ser Asn His Ala	Pro Val Thr Gln Ala Arg
560	565	570
Glu Gly Asn Leu	Pro Leu Leu Ile Ala	Pro Ala Leu Ala Ala Val
575	580	585
Leu Leu Ala Ala	Leu Ala Ala Val Gly	Ala Ala Tyr Cys Val Arg
590	595	600
Arg Gly Arg Ala	Met Ala Ala Ala Ala	Gln Asp Lys Gly Gln Val
605	610	615
Gly Pro Gly Ala	Gly Pro Leu Glu Leu	Glu Gly Val Lys Val Pro
620	625	630
Leu Glu Pro Gly	Pro Lys Ala Thr Glu	Gly Gly Gly Glu Ala Leu
635	640	645
Pro Ser Gly Ser	Glu Cys Glu Val Pro	Leu Met Gly Phe Pro Gly
650	655	660
Pro Gly Leu Gln	Ser Pro Leu His Ala	Lys Pro Tyr Ile
665	670	

<210> 17
 <211> 1672
 <212> DNA
 <213> Homo Sapien

<400> 17
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 gaatccttag attccaagac tactttgaca tcagatgagt cagtaaagga 200
 ccatactact gcaggcagag tagttgctgg tcaaataattt cttgattcag 250
 aagaatctga attagaatcc tctattcaag aagaggaaga cagcctcaag 300
 agccaagagg gggaaagtgt cacagaagat atcagctttc tagagtctcc 350
 aaatccagaa aacaaggact atgaagagcc aaagaaagta cggaaaccag 400
 ctttgaccgc cattgaaggc acagcacatg gggagccctg ccacttcctc 450

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agtggggcctt ttgtgaaact gaagaagagg ctgctaagag acggcagatg 600
caggaagcag aaatgatgta tcaaactgga atgaaaatcc ttaatggaag 650
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caagcatgaa ccataccaaa gccctggaga gagtgtcata tgctctttta 750
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gaagctgact gaggaaggct ctcccaaggg acagactgct cttggctttc 850
tgtatgcctc tggacttggg gttaattcaa gtcaggcaaa ggctcttgta 900
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ggtaagtaga ctttagtgga aggctaataa tattaacatc agaagaattt 1000
gtggtttata ggggccacaa ctttttcagc tttcatgac cagatttgct 1050
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gatataacac atggaatcta catgtaaag aaagttggtg gagtccacaa 1150
tttttcttta aaatgattag tttggctgat tgcccctaaa aagagagatc 1200
tgataaatgg ctctttttta attttctctg agttggaatt gtcagaatca 1250
ttttttacat tagattatca taatttttaa aatttttctt tagtttttca 1300
aaattttgta aatggtggct atagaaaaac aacatgaaat attatacaat 1350
attttgcaac aatgccttaa gaattgttaa aattcatgga gttatttggtg 1400
cagaatgact ccagagagct ctactttctg ttttttactt ttcattgattg 1450
gctgtcttcc catttattct ggtcatttat tgctagtac actgtgcctg 1500
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aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
aaaaaaaaa aaaaaaaaaa aa 1672

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<210> 18
<211> 301
<212> PRT
<213> Homo Sapien

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<400> 18
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Leu Ser Leu Ala Ser Ala Ser Ser Asp Glu Glu Gly Ser Gln Asp
                20             25             30
Glu Ser Leu Asp Ser Lys Thr Thr Leu Thr Ser Asp Glu Ser Val

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35					40					45				
Lys	Asp	His	Thr	Thr	Ala	Gly	Arg	Val	Val	Ala	Gly	Gln	Ile	Phe
				50					55					60
Leu	Asp	Ser	Glu	Glu	Ser	Glu	Leu	Glu	Ser	Ser	Ile	Gln	Glu	Glu
				65					70					75
Glu	Asp	Ser	Leu	Lys	Ser	Gln	Glu	Gly	Glu	Ser	Val	Thr	Glu	Asp
				80					85					90
Ile	Ser	Phe	Leu	Glu	Ser	Pro	Asn	Pro	Glu	Asn	Lys	Asp	Tyr	Glu
				95					100					105
Glu	Pro	Lys	Lys	Val	Arg	Lys	Pro	Ala	Leu	Thr	Ala	Ile	Glu	Gly
				110					115					120
Thr	Ala	His	Gly	Glu	Pro	Cys	His	Phe	Pro	Phe	Leu	Phe	Leu	Asp
				125					130					135
Lys	Glu	Tyr	Asp	Glu	Cys	Thr	Ser	Asp	Gly	Arg	Glu	Asp	Gly	Arg
				140					145					150
Leu	Trp	Cys	Ala	Thr	Thr	Tyr	Asp	Tyr	Lys	Ala	Asp	Glu	Lys	Trp
				155					160					165
Gly	Phe	Cys	Glu	Thr	Glu	Glu	Glu	Ala	Ala	Lys	Arg	Arg	Gln	Met
				170					175					180
Gln	Glu	Ala	Glu	Met	Met	Tyr	Gln	Thr	Gly	Met	Lys	Ile	Leu	Asn
				185					190					195
Gly	Ser	Asn	Lys	Lys	Ser	Gln	Lys	Arg	Glu	Ala	Tyr	Arg	Tyr	Leu
				200					205					210
Gln	Lys	Ala	Ala	Ser	Met	Asn	His	Thr	Lys	Ala	Leu	Glu	Arg	Val
				215					220					225
Ser	Tyr	Ala	Leu	Leu	Phe	Gly	Asp	Tyr	Leu	Pro	Gln	Asn	Ile	Gln
				230					235					240
Ala	Ala	Arg	Glu	Met	Phe	Glu	Lys	Leu	Thr	Glu	Glu	Gly	Ser	Pro
				245					250					255
Lys	Gly	Gln	Thr	Ala	Leu	Gly	Phe	Leu	Tyr	Ala	Ser	Gly	Leu	Gly
				260					265					270
Val	Asn	Ser	Ser	Gln	Ala	Lys	Ala	Leu	Val	Tyr	Tyr	Thr	Phe	Gly
				275					280					285
Ala	Leu	Gly	Gly	Asn	Leu	Ile	Ala	His	Met	Val	Leu	Val	Ser	Arg
				290					295					300

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<210> 19

<211> 1508

<212> DNA

<213> Homo Sapien

<400> 19

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tacatttttta tcaactggatg tgactcgggc tttggaaact tggcagccag 250
aacttttgat aaaaagggat ttcattgtaat cgctgcctgt ctgactgaat 300
caggatcaac agcttttaaag gcagaaacct cagagagact tcgtactgtg 350
cttctggatg tgaccgaccc agagaatgtc aagaggactg cccagtgggt 400
gaagaaccaa gttggggaga aaggtctctg ggggtctgatc aataatgctg 450
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gtgttgaggg tgccttgca atcgttggag ggggctatac tccatccaaa 650
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aaaaaaaa 1508

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<210> 20
<211> 319
<212> PRT

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<213> Homo Sapien

<400> 20

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				20					25					30	
Tyr	Ile	Phe	Ile	Thr	Gly	Cys	Asp	Ser	Gly	Phe	Gly	Asn	Leu	Ala	
				35					40					45	
Ala	Arg	Thr	Phe	Asp	Lys	Lys	Gly	Phe	His	Val	Ile	Ala	Ala	Cys	
				50					55					60	
Leu	Thr	Glu	Ser	Gly	Ser	Thr	Ala	Leu	Lys	Ala	Glu	Thr	Ser	Glu	
				65					70					75	
Arg	Leu	Arg	Thr	Val	Leu	Leu	Asp	Val	Thr	Asp	Pro	Glu	Asn	Val	
				80					85					90	
Lys	Arg	Thr	Ala	Gln	Trp	Val	Lys	Asn	Gln	Val	Gly	Glu	Lys	Gly	
				95					100					105	
Leu	Trp	Gly	Leu	Ile	Asn	Asn	Ala	Gly	Val	Pro	Gly	Val	Leu	Ala	
				110					115					120	
Pro	Thr	Asp	Trp	Leu	Thr	Leu	Glu	Asp	Tyr	Arg	Glu	Pro	Ile	Glu	
				125					130					135	
Val	Asn	Leu	Phe	Gly	Leu	Ile	Ser	Val	Thr	Leu	Asn	Met	Leu	Pro	
				140					145					150	
Leu	Val	Lys	Lys	Ala	Gln	Gly	Arg	Val	Ile	Asn	Val	Ser	Ser	Val	
				155					160					165	
Gly	Gly	Arg	Leu	Ala	Ile	Val	Gly	Gly	Gly	Tyr	Thr	Pro	Ser	Lys	
				170					175					180	
Tyr	Ala	Val	Glu	Gly	Phe	Asn	Asp	Ser	Leu	Arg	Arg	Asp	Met	Lys	
				185					190					195	
Ala	Phe	Gly	Val	His	Val	Ser	Cys	Ile	Glu	Pro	Gly	Leu	Phe	Lys	
				200					205					210	
Thr	Asn	Leu	Ala	Asp	Pro	Val	Lys	Val	Ile	Glu	Lys	Lys	Leu	Ala	
				215					220					225	
Ile	Trp	Glu	Gln	Leu	Ser	Pro	Asp	Ile	Lys	Gln	Gln	Tyr	Gly	Glu	
				230					235					240	
Gly	Tyr	Ile	Glu	Lys	Ser	Leu	Asp	Lys	Leu	Lys	Gly	Asn	Lys	Ser	
				245					250					255	
Tyr	Val	Asn	Met	Asp	Leu	Ser	Pro	Val	Val	Glu	Cys	Met	Asp	His	
				260					265					270	
Ala	Leu	Thr	Ser	Leu	Phe	Pro	Lys	Thr	His	Tyr	Ala	Ala	Gly	Lys	
				275					280					285	
Asp	Ala	Lys	Ile	Phe	Trp	Ile	Pro	Leu	Ser	His	Met	Pro	Ala	Ala	
				290					295					300	

Leu Gln Asp Phe Leu Leu Leu Lys Gln Lys Ala Glu Leu Ala Asn
 305 310 315

Pro Lys Ala Val

<210> 21
 <211> 1849
 <212> DNA
 <213> Homo Sapien

<400> 21
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 acggaagggtt ttcttcttgg ggaagtaaaa ggtgaagcca agaacagcat 150
 tactgattcc caaatggatg atgttgaagt tgtttataca attgacattc 200
 agaaatatat tccatgctat cagcttttta gcttttataa ttcttcaggc 250
 gaagtaaattg agcaagcact gaagaaaata ttatcaaattg tcaaaaagaa 300
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 ttagagagag gctgcttcac aaaaacttgc aggagcattt ttcaaaccac 400
 gaccttgttt ttctgctatt aacaccaagt ataataacag aaagctgctc 450
 tactcatcga ctggaacatt ccttatataa acctcaaaaa ggactttttc 500
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 atatgcaaaa aagtggaaga cagtgaacaa gcagtagata aactagtaaa 750
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 aaatttgcaa aacatcatct aaaattttaa aaaaaaaaaa aaaaaaaaaa 1849

<210> 22

<211> 409

<212> PRT

<213> Homo Sapien

<400> 22

Met	Glu	Gly	Glu	Ser	Thr	Ser	Ala	Val	Leu	Ser	Gly	Phe	Val	Leu	1	5	10	15
Gly	Ala	Leu	Ala	Phe	Gln	His	Leu	Asn	Thr	Asp	Ser	Asp	Thr	Glu	20	25	30	
Gly	Phe	Leu	Leu	Gly	Glu	Val	Lys	Gly	Glu	Ala	Lys	Asn	Ser	Ile	35	40	45	
Thr	Asp	Ser	Gln	Met	Asp	Asp	Val	Glu	Val	Val	Tyr	Thr	Ile	Asp	50	55	60	
Ile	Gln	Lys	Tyr	Ile	Pro	Cys	Tyr	Gln	Leu	Phe	Ser	Phe	Tyr	Asn	65	70	75	
Ser	Ser	Gly	Glu	Val	Asn	Glu	Gln	Ala	Leu	Lys	Lys	Ile	Leu	Ser	80	85	90	
Asn	Val	Lys	Lys	Asn	Val	Val	Gly	Trp	Tyr	Lys	Phe	Arg	Arg	His	95	100	105	
Ser	Asp	Gln	Ile	Met	Thr	Phe	Arg	Glu	Arg	Leu	Leu	His	Lys	Asn	110	115	120	
Leu	Gln	Glu	His	Phe	Ser	Asn	Gln	Asp	Leu	Val	Phe	Leu	Leu	Leu	125	130	135	
Thr	Pro	Ser	Ile	Ile	Thr	Glu	Ser	Cys	Ser	Thr	His	Arg	Leu	Glu	140	145	150	
His	Ser	Leu	Tyr	Lys	Pro	Gln	Lys	Gly	Leu	Phe	His	Arg	Val	Pro	155	160	165	
Leu	Val	Val	Ala	Asn	Leu	Gly	Met	Ser	Glu	Gln	Leu	Gly	Tyr	Lys	170	175	180	

Thr	Val	Ser	Gly	Ser	Cys	Met	Ser	Thr	Gly	Phe	Ser	Arg	Ala	Val	185	190	195
Gln	Thr	His	Ser	Ser	Lys	Phe	Phe	Glu	Glu	Asp	Gly	Ser	Leu	Lys	200	205	210
Glu	Val	His	Lys	Ile	Asn	Glu	Met	Tyr	Ala	Ser	Leu	Gln	Glu	Glu	215	220	225
Leu	Lys	Ser	Ile	Cys	Lys	Lys	Val	Glu	Asp	Ser	Glu	Gln	Ala	Val	230	235	240
Asp	Lys	Leu	Val	Lys	Asp	Val	Asn	Arg	Leu	Lys	Arg	Glu	Ile	Glu	245	250	255
Lys	Arg	Arg	Gly	Ala	Gln	Ile	Gln	Ala	Ala	Arg	Glu	Lys	Asn	Ile	260	265	270
Gln	Lys	Asp	Pro	Gln	Glu	Asn	Ile	Phe	Leu	Cys	Gln	Ala	Leu	Arg	275	280	285
Thr	Phe	Phe	Pro	Asn	Ser	Glu	Phe	Leu	His	Ser	Cys	Val	Met	Ser	290	295	300
Leu	Lys	Asn	Arg	His	Val	Ser	Lys	Ser	Ser	Cys	Asn	Tyr	Asn	His	305	310	315
His	Leu	Asp	Val	Val	Asp	Asn	Leu	Thr	Leu	Met	Val	Glu	His	Thr	320	325	330
Asp	Ile	Pro	Glu	Ala	Ser	Pro	Ala	Ser	Thr	Pro	Gln	Ile	Ile	Lys	335	340	345
His	Lys	Ala	Leu	Asp	Leu	Asp	Asp	Arg	Trp	Gln	Phe	Lys	Arg	Ser	350	355	360
Arg	Leu	Leu	Asp	Thr	Gln	Asp	Lys	Arg	Ser	Lys	Ala	Asn	Thr	Gly	365	370	375
Ser	Ser	Asn	Gln	Asp	Lys	Ala	Ser	Lys	Met	Ser	Ser	Pro	Glu	Thr	380	385	390
Asp	Glu	Glu	Ile	Glu	Lys	Met	Lys	Gly	Phe	Gly	Glu	Tyr	Ser	Arg	395	400	405

Ser Pro Thr Phe

<210> 23
 <211> 2651
 <212> DNA
 <213> Homo Sapien

<400> 23
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 cgccgcccac accctctgcg gtccccgcgg cgcttgccac ccttccctcc 150
 ttccccgcgt ccccgccctcg ccggccagtc agcttgccgg gtctgctgcc 200
 ccgcgaaacc ccgaggtcac cagccccgcg ctctgcttcc ctgggcccgc 250

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<210> 24
 <211> 556
 <212> PRT
 <213> Homo Sapien

<400> 24
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 35 40 45
 Asp Ala Pro Leu His Glu Ile Asn Gly Asp His Leu Lys Ile Cys
 50 55 60
 Pro Gln Gly Ser Thr Cys Cys Ser Gln Glu Met Glu Glu Lys Tyr
 65 70 75
 Ser Leu Gln Ser Lys Asp Asp Phe Lys Ser Val Val Ser Glu Gln
 80 85 90
 Cys Asn His Leu Gln Ala Val Phe Ala Ser Arg Tyr Lys Lys Phe
 95 100 105
 Asp Glu Phe Phe Lys Glu Leu Leu Glu Asn Ala Glu Lys Ser Leu
 110 115 120

Asn	Asp	Met	Phe	Val	Lys	Thr	Tyr	Gly	His	Leu	Tyr	Met	Gln	Asn	
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Ser	Glu	Leu	Phe	Lys	Asp	Leu	Phe	Val	Glu	Leu	Lys	Arg	Tyr	Tyr	
				140					145					150	
Val	Val	Gly	Asn	Val	Asn	Leu	Glu	Glu	Met	Leu	Asn	Asp	Phe	Trp	
				155					160					165	
Ala	Arg	Leu	Leu	Glu	Arg	Met	Phe	Arg	Leu	Val	Asn	Ser	Gln	Tyr	
				170					175					180	
His	Phe	Thr	Asp	Glu	Tyr	Leu	Glu	Cys	Val	Ser	Lys	Tyr	Thr	Glu	
				185					190					195	
Gln	Leu	Lys	Pro	Phe	Gly	Asp	Val	Pro	Arg	Lys	Leu	Lys	Leu	Gln	
				200					205					210	
Val	Thr	Arg	Ala	Phe	Val	Ala	Ala	Arg	Thr	Phe	Ala	Gln	Gly	Leu	
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Ala	Val	Ala	Gly	Asp	Val	Val	Ser	Lys	Val	Ser	Val	Val	Asn	Pro	
				230					235					240	
Thr	Ala	Gln	Cys	Thr	His	Ala	Leu	Leu	Lys	Met	Ile	Tyr	Cys	Ser	
				245					250					255	
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				260					265					270	
Ser	Asn	Ile	Met	Arg	Gly	Cys	Leu	Ala	Asn	Gln	Gly	Asp	Leu	Asp	
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Phe	Glu	Trp	Asn	Asn	Phe	Ile	Asp	Ala	Met	Leu	Met	Val	Ala	Glu	
				290					295					300	
Arg	Leu	Glu	Gly	Pro	Phe	Asn	Ile	Glu	Ser	Val	Met	Asp	Pro	Ile	
				305					310					315	
Asp	Val	Lys	Ile	Ser	Asp	Ala	Ile	Met	Asn	Met	Gln	Asp	Asn	Ser	
				320					325					330	
Val	Gln	Val	Ser	Gln	Lys	Val	Phe	Gln	Gly	Cys	Gly	Pro	Pro	Lys	
				335					340					345	
Pro	Leu	Pro	Ala	Gly	Arg	Ile	Ser	Arg	Ser	Ile	Ser	Glu	Ser	Ala	
				350					355					360	
Phe	Ser	Ala	Arg	Phe	Arg	Pro	His	His	Pro	Glu	Glu	Arg	Pro	Thr	
				365					370					375	
Thr	Ala	Ala	Gly	Thr	Ser	Leu	Asp	Arg	Leu	Val	Thr	Asp	Val	Lys	
				380					385					390	
Glu	Lys	Leu	Lys	Gln	Ala	Lys	Lys	Phe	Trp	Ser	Ser	Leu	Pro	Ser	
				395					400					405	
Asn	Val	Cys	Asn	Asp	Glu	Arg	Met	Ala	Ala	Gly	Asn	Gly	Asn	Glu	
				410					415					420	
Asp	Asp	Cys	Trp	Asn	Gly	Lys	Gly	Lys	Ser	Arg	Tyr	Leu	Phe	Ala	
				425					430					435	

Val	Thr	Gly	Asn	Gly	Leu	Ala	Asn	Gln	Gly	Asn	Asn	Pro	Glu	Val
				440					445					450
Gln	Val	Asp	Thr	Ser	Lys	Pro	Asp	Ile	Leu	Ile	Leu	Arg	Gln	Ile
				455					460					465
Met	Ala	Leu	Arg	Val	Met	Thr	Ser	Lys	Met	Lys	Asn	Ala	Tyr	Asn
				470					475					480
Gly	Asn	Asp	Val	Asp	Phe	Phe	Asp	Ile	Ser	Asp	Glu	Ser	Ser	Gly
				485					490					495
Glu	Gly	Ser	Gly	Ser	Gly	Cys	Glu	Tyr	Gln	Gln	Cys	Pro	Ser	Glu
				500					505					510
Phe	Asp	Tyr	Asn	Ala	Thr	Asp	His	Ala	Gly	Lys	Ser	Ala	Asn	Glu
				515					520					525
Lys	Ala	Asp	Ser	Ala	Gly	Val	Arg	Pro	Gly	Ala	Gln	Ala	Tyr	Leu
				530					535					540
Leu	Thr	Val	Phe	Cys	Ile	Leu	Phe	Leu	Val	Met	Gln	Arg	Glu	Trp
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 <211> 870
 <212> DNA
 <213> Homo Sapien

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 cgatgaaagt tctaattctt tccctcctcc tgttgctgcc actaatgctg 200
 atgtccatgg tctctagcag cctgaatcca ggggtcgcca gaggccacag 250
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 gtgtctgggc tgccaaagaa gcagtgcccc tgtgatcatt tcaagggcaa 400
 tgtgaagaaa acaagacacc aaaggcacca cagaaagcca aacaagcatt 450
 ccagagcctg ccagcaattt ctcaaacaat gtcagctaag aagctttgct 500
 ctgcctttgt aggagctctg agcgccact cttccaatta aacattctca 550
 gccaaagaaga cagtgagcac acctaccaga cactcttctt ctcccacctc 600
 actctccac tgtaccaccc cctaaatcat tccagtgtc tcaaaaagca 650
 tgtttttcaa gatcattttg tttgttgctc tctctagtgt cttcttctct 700
 cgtcagtctt agcctgtgcc ctccccttac ccaggcttag gcttaattac 750

ctgaaagatt ccaggaaact gtagcttcct agctagtgtc atttaacctt 800
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<210> 26
 <211> 119
 <212> PRT
 <213> Homo Sapien

<400> 26
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 35 40 45
 Gly Gly Gln Glu Cys Glu Cys Lys Asp Trp Phe Leu Arg Ala Pro
 50 55 60
 Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro Lys Lys Gln Cys
 65 70 75
 Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr Arg His Gln
 80 85 90
 Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys Gln Gln
 95 100 105
 Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu
 110 115

<210> 27
 <211> 1371
 <212> DNA
 <213> Homo Sapien

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taataaatag acgaaaccac g 1371

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<210> 28
<211> 277
<212> PRT
<213> Homo Sapien

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Leu Cys Lys Ser Tyr Phe Pro Tyr Leu Met Ala Val Leu Thr Pro
          35          40          45
Lys Ser Asn Arg Lys Met Glu Ser Lys Lys Arg Glu Leu Phe Ser
          50          55          60
Gln Ile Lys Gly Leu Thr Gly Ala Ser Gly Lys Val Ala Leu Leu
          65          70          75
Glu Leu Gly Cys Gly Thr Gly Ala Asn Phe Gln Phe Tyr Pro Pro
          80          85          90
Gly Cys Arg Val Thr Cys Leu Asp Pro Asn Pro His Phe Glu Lys
          95          100          105
Phe Leu Thr Lys Ser Met Ala Glu Asn Arg His Leu Gln Tyr Glu
          110          115          120

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Arg	Phe	Val	Val	Ala	Pro	Gly	Glu	Asp	Met	Arg	Gln	Leu	Ala	Asp	
				125					130					135	
Gly	Ser	Met	Asp	Val	Val	Val	Cys	Thr	Leu	Val	Leu	Cys	Ser	Val	
				140					145					150	
Gln	Ser	Pro	Arg	Lys	Val	Leu	Gln	Glu	Val	Arg	Arg	Val	Leu	Arg	
				155					160					165	
Pro	Gly	Gly	Val	Leu	Phe	Phe	Trp	Glu	His	Val	Ala	Glu	Pro	Tyr	
				170					175					180	
Gly	Ser	Trp	Ala	Phe	Met	Trp	Gln	Gln	Val	Phe	Glu	Pro	Thr	Trp	
				185					190					195	
Lys	His	Ile	Gly	Asp	Gly	Cys	Cys	Leu	Thr	Arg	Glu	Thr	Trp	Lys	
				200					205					210	
Asp	Leu	Glu	Asn	Ala	Gln	Phe	Ser	Glu	Ile	Gln	Met	Glu	Arg	Gln	
				215					220					225	
Pro	Pro	Pro	Leu	Lys	Trp	Leu	Pro	Val	Gly	Pro	His	Ile	Met	Gly	
				230					235					240	
Lys	Ala	Val	Lys	Gln	Ser	Phe	Pro	Ser	Ser	Lys	Ala	Leu	Ile	Cys	
				245					250					255	
Ser	Phe	Pro	Ser	Leu	Gln	Leu	Glu	Gln	Ala	Thr	His	Gln	Pro	Ile	
				260					265					270	
Tyr	Leu	Pro	Leu	Arg	Gly	Thr									
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<210> 29
 <211> 494
 <212> DNA
 <213> Homo Sapien

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<210> 30
 <211> 73
 <212> PRT
 <213> Homo Sapien

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 Ser Cys Leu Glu Trp Gly Leu Val Gly Ala Gln Lys Val Ser Ser
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 Phe Leu Cys Leu Leu Pro His Arg Pro Ala Met Thr Cys Ser Gln
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 Ala Gln Pro Arg Gly Glu Gly Glu Lys Val Gly Asp Gly
 65 70

<210> 31
 <211> 1660
 <212> DNA
 <213> Homo Sapien

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 gatacaatcc ttggcctgtg taccctcgca ttagccttgt ctttggccat 250
 gatgtttacc ttcagattca tcaccaccct tctgggttcac attttcattt 300
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 tattatgact ataccaacga cctcagcata gaattggaca cagaaaggga 400
 aaatatgaag tgcgtgctgg ggtttgctat cgtatccaca ggcatcacgg 450
 cagtgtgct cgtcttgatt tttgttctca gaaagagaat aaaattgaca 500
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<210> 32
<211> 445
<212> PRT
<213> Homo Sapien

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35 40 45
Phe Val Cys Gly Val Leu Trp Trp Leu Tyr Tyr Asp Tyr Thr Asn
50 55 60
Asp Leu Ser Ile Glu Leu Asp Thr Glu Arg Glu Asn Met Lys Cys
65 70 75
Val Leu Gly Phe Ala Ile Val Ser Thr Gly Ile Thr Ala Val Leu
80 85 90
Leu Val Leu Ile Phe Val Leu Arg Lys Arg Ile Lys Leu Thr Val
95 100 105
Glu Leu Phe Gln Ile Thr Asn Lys Ala Ile Ser Ser Ala Pro Phe
110 115 120
Leu Leu Phe Gln Pro Leu Trp Thr Phe Ala Ile Leu Ile Phe Phe
125 130 135
Trp Val Leu Trp Val Ala Val Leu Leu Ser Leu Gly Thr Ala Gly
140 145 150
Ala Ala Gln Val Met Glu Gly Gly Gln Val Glu Tyr Lys Pro Leu

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Ser Gly Ile Arg	Tyr 170	Met Trp Ser Tyr	His 175	Leu Ile Gly Leu	Ile 180
Trp Thr Ser Glu	Phe 185	Ile Leu Ala Cys	Gln 190	Gln Met Thr Ile	Ala 195
Gly Ala Val Val	Thr 200	Cys Tyr Phe Asn	Arg 205	Ser Lys Asn Asp	Pro 210
Pro Asp His Pro	Ile 215	Leu Ser Ser Leu	Ser 220	Ile Leu Phe Phe	Tyr 225
His Gln Gly Thr	Val 230	Val Lys Gly Ser	Phe 235	Leu Ile Ser Val	Val 240
Arg Ile Pro Arg	Ile 245	Ile Val Met Tyr	Met 250	Gln Asn Ala Leu	Lys 255
Glu Gln Gln His	Gly 260	Ala Leu Ser Arg	Tyr 265	Leu Phe Arg Cys	Cys 270
Tyr Cys Cys Phe	Trp 275	Cys Leu Asp Lys	Tyr 280	Leu Leu His Leu	Asn 285
Gln Asn Ala Tyr	Thr 290	Thr Thr Ala Ile	Asn 295	Gly Thr Asp Phe	Cys 300
Thr Ser Ala Lys	Asp 305	Ala Phe Lys Ile	Leu 310	Ser Lys Asn Ser	Ser 315
His Phe Thr Ser	Ile 320	Asn Cys Phe Gly	Asp 325	Phe Ile Ile Phe	Leu 330
Gly Lys Val Leu	Val 335	Val Cys Phe Thr	Val 340	Phe Gly Gly Leu	Met 345
Ala Phe Asn Tyr	Asn 350	Arg Ala Phe Gln	Val 355	Trp Ala Val Pro	Leu 360
Leu Leu Val Ala	Phe 365	Phe Ala Tyr Leu	Val 370	Ala His Ser Phe	Leu 375
Ser Val Phe Glu	Thr 380	Val Leu Asp Ala	Leu 385	Phe Leu Cys Phe	Ala 390
Val Asp Leu Glu	Thr 395	Asn Asp Gly Ser	Ser 400	Glu Lys Pro Tyr	Phe 405
Met Asp Gln Glu	Phe 410	Leu Ser Phe Val	Lys 415	Arg Ser Asn Lys	Leu 420
Asn Asn Ala Arg	Ala 425	Gln Gln Asp Lys	His 430	Ser Leu Arg Asn	Glu 435
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<210> 33
 <211> 2773
 <212> DNA
 <213> Homo Sapien

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<400> 33
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<211> 678
<212> PRT
<213> Homo Sapien

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Phe Leu Val Leu Leu Val Thr Gly Val His Ser Asn Lys Glu Thr
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Ala Lys Lys Ile Lys Arg Pro Lys Phe Thr Val Pro Gln Ile Asn

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Cys	Asp	Val	Lys	Ala	Gly	Lys	Ile	Ile	Asp	Pro	Glu	Phe	Ile	Val
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Lys	Cys	Pro	Ala	Gly	Cys	Gln	Asp	Pro	Lys	Tyr	His	Val	Tyr	Gly
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Thr	Asp	Val	Tyr	Ala	Ser	Tyr	Ser	Ser	Val	Cys	Gly	Ala	Ala	Val
				80					85					90
His	Ser	Gly	Val	Leu	Asp	Asn	Ser	Gly	Gly	Lys	Ile	Leu	Val	Arg
				95					100					105
Lys	Val	Ala	Gly	Gln	Ser	Gly	Tyr	Lys	Gly	Ser	Tyr	Ser	Asn	Gly
				110					115					120
Val	Gln	Ser	Leu	Ser	Leu	Pro	Arg	Trp	Arg	Glu	Ser	Phe	Ile	Val
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Leu	Glu	Ser	Lys	Pro	Lys	Lys	Gly	Val	Thr	Tyr	Pro	Ser	Ala	Leu
				140					145					150
Thr	Tyr	Ser	Ser	Ser	Lys	Ser	Pro	Ala	Ala	Gln	Ala	Gly	Glu	Thr
				155					160					165
Thr	Lys	Ala	Tyr	Gln	Arg	Pro	Pro	Ile	Pro	Gly	Thr	Thr	Ala	Gln
				170					175					180
Pro	Val	Thr	Leu	Met	Gln	Leu	Leu	Ala	Val	Thr	Val	Ala	Val	Ala
				185					190					195
Thr	Pro	Thr	Thr	Leu	Pro	Arg	Pro	Ser	Pro	Ser	Ala	Ala	Ser	Thr
				200					205					210
Thr	Ser	Ile	Pro	Arg	Pro	Gln	Ser	Val	Gly	His	Arg	Ser	Gln	Glu
				215					220					225
Met	Asp	Leu	Trp	Ser	Thr	Ala	Thr	Tyr	Thr	Ser	Ser	Gln	Asn	Arg
				230					235					240
Pro	Arg	Ala	Asp	Pro	Gly	Ile	Gln	Arg	Gln	Asp	Pro	Ser	Gly	Ala
				245					250					255
Ala	Phe	Gln	Lys	Pro	Val	Gly	Ala	Asp	Val	Ser	Leu	Gly	Leu	Val
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Pro	Lys	Glu	Glu	Leu	Ser	Thr	Gln	Ser	Leu	Glu	Pro	Val	Ser	Leu
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Gly	Asp	Pro	Asn	Cys	Lys	Ile	Asp	Leu	Ser	Phe	Leu	Ile	Asp	Gly
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Ser	Thr	Ser	Ile	Gly	Lys	Arg	Arg	Phe	Arg	Ile	Gln	Lys	Gln	Leu
				305					310					315
Leu	Ala	Asp	Val	Ala	Gln	Ala	Leu	Asp	Ile	Gly	Pro	Ala	Gly	Pro
				320					325					330
Leu	Met	Gly	Val	Val	Gln	Tyr	Gly	Asp	Asn	Pro	Ala	Thr	His	Phe
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Asn	Leu	Lys	Thr	His	Thr	Asn	Ser	Arg	Asp	Leu	Lys	Thr	Ala	Ile

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Glu Lys Ile Thr	Gln Arg Gly Gly Leu Ser Asn Val Gly Arg Ala				
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Ile Ser Phe Val	Thr Lys Asn Phe Phe Ser Lys Ala Asn Gly Asn				
	380		385		390
Arg Ser Gly Ala	Pro Asn Val Val Val Val Met Val Asp Gly Trp				
	395		400		405
Pro Thr Asp Lys	Val Glu Glu Ala Ser Arg Leu Ala Arg Glu Ser				
	410		415		420
Gly Ile Asn Ile	Phe Phe Ile Thr Ile Glu Gly Ala Ala Glu Asn				
	425		430		435
Glu Lys Gln Tyr	Val Val Glu Pro Asn Phe Ala Asn Lys Ala Val				
	440		445		450
Cys Arg Thr Asn	Gly Phe Tyr Ser Leu His Val Gln Ser Trp Phe				
	455		460		465
Gly Leu His Lys	Thr Leu Gln Pro Leu Val Lys Arg Val Cys Asp				
	470		475		480
Thr Asp Arg Leu	Ala Cys Ser Lys Thr Cys Leu Asn Ser Ala Asp				
	485		490		495
Ile Gly Phe Val	Ile Asp Gly Ser Ser Ser Val Gly Thr Gly Asn				
	500		505		510
Phe Arg Thr Val	Leu Gln Phe Val Thr Asn Leu Thr Lys Glu Phe				
	515		520		525
Glu Ile Ser Asp	Thr Asp Thr Arg Ile Gly Ala Val Gln Tyr Thr				
	530		535		540
Tyr Glu Gln Arg	Leu Glu Phe Gly Phe Asp Lys Tyr Ser Ser Lys				
	545		550		555
Pro Asp Ile Leu	Asn Ala Ile Lys Arg Val Gly Tyr Trp Ser Gly				
	560		565		570
Gly Thr Ser Thr	Gly Ala Ala Ile Asn Phe Ala Leu Glu Gln Leu				
	575		580		585
Phe Lys Lys Ser	Lys Pro Asn Lys Arg Lys Leu Met Ile Leu Ile				
	590		595		600
Thr Asp Gly Arg	Ser Tyr Asp Asp Val Arg Ile Pro Ala Met Ala				
	605		610		615
Ala His Leu Lys	Gly Val Ile Thr Tyr Ala Ile Gly Val Ala Trp				
	620		625		630
Ala Ala Gln Glu	Glu Leu Glu Val Ile Ala Thr His Pro Ala Arg				
	635		640		645
Asp His Ser Phe	Phe Val Asp Glu Phe Asp Asn Leu His Gln Tyr				
	650		655		660
Val Pro Arg Ile	Ile Gln Asn Ile Cys Thr Glu Phe Asn Ser Gln				

Pro Arg Asn

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 <211> 2095
 <212> DNA
 <213> Homo Sapien

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 caacaaaaaa cttaagcttt aatttcacat ggaattccac agttttctta 200
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<210> 36
 <211> 331
 <212> PRT
 <213> Homo Sapien

<400> 36
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 35 40 45
 Arg Val Asn Trp Met Tyr Phe Tyr Glu Tyr Glu Pro Ile Tyr Arg
 50 55 60
 Gln Asp Phe His Phe Thr Leu Arg Glu His Ser Asn Cys Ser His
 65 70 75
 Gln Asn Pro Phe Leu Val Ile Leu Val Thr Ser His Pro Ser Asp
 80 85 90
 Val Lys Ala Arg Gln Ala Ile Arg Val Thr Trp Gly Glu Lys Lys
 95 100 105
 Ser Trp Trp Gly Tyr Glu Val Leu Thr Phe Phe Leu Leu Gly Gln
 110 115 120
 Glu Ala Glu Lys Glu Asp Lys Met Leu Ala Leu Ser Leu Glu Asp

	125		130		135
Glu His Leu Leu Tyr Gly Asp Ile Ile Arg Gln Asp Phe Leu Asp	140		145		150
Thr Tyr Asn Asn Leu Thr Leu Lys Thr Ile Met Ala Phe Arg Trp	155		160		165
Val Thr Glu Phe Cys Pro Asn Ala Lys Tyr Val Met Lys Thr Asp	170		175		180
Thr Asp Val Phe Ile Asn Thr Gly Asn Leu Val Lys Tyr Leu Leu	185		190		195
Asn Leu Asn His Ser Glu Lys Phe Phe Thr Gly Tyr Pro Leu Ile	200		205		210
Asp Asn Tyr Ser Tyr Arg Gly Phe Tyr Gln Lys Thr His Ile Ser	215		220		225
Tyr Gln Glu Tyr Pro Phe Lys Val Phe Pro Pro Tyr Cys Ser Gly	230		235		240
Leu Gly Tyr Ile Met Ser Arg Asp Leu Val Pro Arg Ile Tyr Glu	245		250		255
Met Met Gly His Val Lys Pro Ile Lys Phe Glu Asp Val Tyr Val	260		265		270
Gly Ile Cys Leu Asn Leu Leu Lys Val Asn Ile His Ile Pro Glu	275		280		285
Asp Thr Asn Leu Phe Phe Leu Tyr Arg Ile His Leu Asp Val Cys	290		295		300
Gln Leu Arg Arg Val Ile Ala Ala His Gly Phe Ser Ser Lys Glu	305		310		315
Ile Ile Thr Phe Trp Gln Val Met Leu Arg Asn Thr Thr Cys His	320		325		330

Tyr

<210> 37
 <211> 2846
 <212> DNA
 <213> Homo Sapien

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 tcgggagtgc tgtgaatatg atcagattga gtgcgtctgc cccggaaaga 200
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<210> 38
 <211> 720
 <212> PRT
 <213> Homo Sapien

<400> 38
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 Glu Ala Cys Pro Gly Ala Glu Trp Asn Ile Met Cys Arg Glu Cys
 35 40 45
 Cys Glu Tyr Asp Gln Ile Glu Cys Val Cys Pro Gly Lys Arg Glu
 50 55 60
 Val Val Gly Tyr Thr Ile Pro Cys Cys Arg Asn Glu Glu Asn Glu
 65 70 75
 Cys Asp Ser Cys Leu Ile His Pro Gly Cys Thr Ile Phe Glu Asn
 80 85 90
 Cys Lys Ser Cys Arg Asn Gly Ser Trp Gly Gly Thr Leu Asp Asp
 95 100 105

Phe	Tyr	Val	Lys	Gly	Phe	Tyr	Cys	Ala	Glu	Cys	Arg	Ala	Gly	Trp	110	115	120
Tyr	Gly	Gly	Asp	Cys	Met	Arg	Cys	Gly	Gln	Val	Leu	Arg	Ala	Pro	125	130	135
Lys	Gly	Gln	Ile	Leu	Leu	Glu	Ser	Tyr	Pro	Leu	Asn	Ala	His	Cys	140	145	150
Glu	Trp	Thr	Ile	His	Ala	Lys	Pro	Gly	Phe	Val	Ile	Gln	Leu	Arg	155	160	165
Phe	Val	Met	Leu	Ser	Leu	Glu	Phe	Asp	Tyr	Met	Cys	Gln	Tyr	Asp	170	175	180
Tyr	Val	Glu	Val	Arg	Asp	Gly	Asp	Asn	Arg	Asp	Gly	Gln	Ile	Ile	185	190	195
Lys	Arg	Val	Cys	Gly	Asn	Glu	Arg	Pro	Ala	Pro	Ile	Gln	Ser	Ile	200	205	210
Gly	Ser	Ser	Leu	His	Val	Leu	Phe	His	Ser	Asp	Gly	Ser	Lys	Asn	215	220	225
Phe	Asp	Gly	Phe	His	Ala	Ile	Tyr	Glu	Glu	Ile	Thr	Ala	Cys	Ser	230	235	240
Ser	Ser	Pro	Cys	Phe	His	Asp	Gly	Thr	Cys	Val	Leu	Asp	Lys	Ala	245	250	255
Gly	Ser	Tyr	Lys	Cys	Ala	Cys	Leu	Ala	Gly	Tyr	Thr	Gly	Gln	Arg	260	265	270
Cys	Glu	Asn	Leu	Leu	Glu	Glu	Arg	Asn	Cys	Ser	Asp	Pro	Gly	Gly	275	280	285
Pro	Val	Asn	Gly	Tyr	Gln	Lys	Ile	Thr	Gly	Gly	Pro	Gly	Leu	Ile	290	295	300
Asn	Gly	Arg	His	Ala	Lys	Ile	Gly	Thr	Val	Val	Ser	Phe	Phe	Cys	305	310	315
Asn	Asn	Ser	Tyr	Val	Leu	Ser	Gly	Asn	Glu	Lys	Arg	Thr	Cys	Gln	320	325	330
Gln	Asn	Gly	Glu	Trp	Ser	Gly	Lys	Gln	Pro	Ile	Cys	Ile	Lys	Ala	335	340	345
Cys	Arg	Glu	Pro	Lys	Ile	Ser	Asp	Leu	Val	Arg	Arg	Arg	Val	Leu	350	355	360
Pro	Met	Gln	Val	Gln	Ser	Arg	Glu	Thr	Pro	Leu	His	Gln	Leu	Tyr	365	370	375
Ser	Ala	Ala	Phe	Ser	Lys	Gln	Lys	Leu	Gln	Ser	Ala	Pro	Thr	Lys	380	385	390
Lys	Pro	Ala	Leu	Pro	Phe	Gly	Asp	Leu	Pro	Met	Gly	Tyr	Gln	His	395	400	405
Leu	His	Thr	Gln	Leu	Gln	Tyr	Glu	Cys	Ile	Ser	Pro	Phe	Tyr	Arg	410	415	420

Arg	Leu	Gly	Ser	Ser	Arg	Arg	Thr	Cys	Leu	Arg	Thr	Gly	Lys	Trp	425	430	435
Ser	Gly	Arg	Ala	Pro	Ser	Cys	Ile	Pro	Ile	Cys	Gly	Lys	Ile	Glu	440	445	450
Asn	Ile	Thr	Ala	Pro	Lys	Thr	Gln	Gly	Leu	Arg	Trp	Pro	Trp	Gln	455	460	465
Ala	Ala	Ile	Tyr	Arg	Arg	Thr	Ser	Gly	Val	His	Asp	Gly	Ser	Leu	470	475	480
His	Lys	Gly	Ala	Trp	Phe	Leu	Val	Cys	Ser	Gly	Ala	Leu	Val	Asn	485	490	495
Glu	Arg	Thr	Val	Val	Val	Ala	Ala	His	Cys	Val	Thr	Asp	Leu	Gly	500	505	510
Lys	Val	Thr	Met	Ile	Lys	Thr	Ala	Asp	Leu	Lys	Val	Val	Leu	Gly	515	520	525
Lys	Phe	Tyr	Arg	Asp	Asp	Asp	Arg	Asp	Glu	Lys	Thr	Ile	Gln	Ser	530	535	540
Leu	Gln	Ile	Ser	Ala	Ile	Ile	Leu	His	Pro	Asn	Tyr	Asp	Pro	Ile	545	550	555
Leu	Leu	Asp	Ala	Asp	Ile	Ala	Ile	Leu	Lys	Leu	Leu	Asp	Lys	Ala	560	565	570
Arg	Ile	Ser	Thr	Arg	Val	Gln	Pro	Ile	Cys	Leu	Ala	Ala	Ser	Arg	575	580	585
Asp	Leu	Ser	Thr	Ser	Phe	Gln	Glu	Ser	His	Ile	Thr	Val	Ala	Gly	590	595	600
Trp	Asn	Val	Leu	Ala	Asp	Val	Arg	Ser	Pro	Gly	Phe	Lys	Asn	Asp	605	610	615
Thr	Leu	Arg	Ser	Gly	Val	Val	Ser	Val	Val	Asp	Ser	Leu	Leu	Cys	620	625	630
Glu	Glu	Gln	His	Glu	Asp	His	Gly	Ile	Pro	Val	Ser	Val	Thr	Asp	635	640	645
Asn	Met	Phe	Cys	Ala	Ser	Trp	Glu	Pro	Thr	Ala	Pro	Ser	Asp	Ile	650	655	660
Cys	Thr	Ala	Glu	Thr	Gly	Gly	Ile	Ala	Ala	Val	Ser	Phe	Pro	Gly	665	670	675
Arg	Ala	Ser	Pro	Glu	Pro	Arg	Trp	His	Leu	Met	Gly	Leu	Val	Ser	680	685	690
Trp	Ser	Tyr	Asp	Lys	Thr	Cys	Ser	His	Arg	Leu	Ser	Thr	Ala	Phe	695	700	705
Thr	Lys	Val	Leu	Pro	Phe	Lys	Asp	Trp	Ile	Glu	Arg	Asn	Met	Lys	710	715	720

<210> 39
 <211> 2571
 <212> DNA

<213> Homo Sapien

<400> 39

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<210> 40
<211> 632
<212> PRT
<213> Homo Sapien

<400> 40
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Leu Cys Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys
35 40 45
Arg Arg Ser Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr
50 55 60
Ala Thr Ala Pro Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser

65					70					75				
Leu	Met	Thr	Asp	Glu	Pro	Gly	Leu	Asp	Asn	Pro	Ala	Tyr	Val	Ser
				80					85					90
Ser	Ala	Glu	Asp	Gly	Gln	Pro	Ala	Ile	Ser	Pro	Val	Asp	Ser	Gly
				95					100					105
Arg	Ser	Asn	Arg	Thr	Arg	Ala	Arg	Pro	Phe	Glu	Arg	Ser	Thr	Ile
				110					115					120
Arg	Ser	Arg	Ser	Phe	Lys	Lys	Ile	Asn	Arg	Ala	Leu	Ser	Val	Leu
				125					130					135
Arg	Arg	Thr	Lys	Ser	Gly	Ser	Ala	Val	Ala	Asn	His	Ala	Asp	Gln
				140					145					150
Gly	Arg	Glu	Asn	Ser	Glu	Asn	Thr	Thr	Ala	Pro	Glu	Val	Phe	Pro
				155					160					165
Arg	Leu	Tyr	His	Leu	Ile	Pro	Asp	Gly	Glu	Ile	Thr	Ser	Ile	Lys
				170					175					180
Ile	Asn	Arg	Val	Asp	Pro	Ser	Glu	Ser	Leu	Ser	Ile	Arg	Leu	Val
				185					190					195
Gly	Gly	Ser	Glu	Thr	Pro	Leu	Val	His	Ile	Ile	Ile	Gln	His	Ile
				200					205					210
Tyr	Arg	Asp	Gly	Val	Ile	Ala	Arg	Asp	Gly	Arg	Leu	Leu	Pro	Gly
				215					220					225
Asp	Ile	Ile	Leu	Lys	Val	Asn	Gly	Met	Asp	Ile	Ser	Asn	Val	Pro
				230					235					240
His	Asn	Tyr	Ala	Val	Arg	Leu	Leu	Arg	Gln	Pro	Cys	Gln	Val	Leu
				245					250					255
Trp	Leu	Thr	Val	Met	Arg	Glu	Gln	Lys	Phe	Arg	Ser	Arg	Asn	Asn
				260					265					270
Gly	Gln	Ala	Pro	Asp	Ala	Tyr	Arg	Pro	Arg	Asp	Asp	Ser	Phe	His
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Val	Ile	Leu	Asn	Lys	Ser	Ser	Pro	Glu	Glu	Gln	Leu	Gly	Ile	Lys
				290					295					300
Leu	Val	Arg	Lys	Val	Asp	Glu	Pro	Gly	Val	Phe	Ile	Phe	Asn	Val
				305					310					315
Leu	Asp	Gly	Gly	Val	Ala	Tyr	Arg	His	Gly	Gln	Leu	Glu	Glu	Asn
				320					325					330
Asp	Arg	Val	Leu	Ala	Ile	Asn	Gly	His	Asp	Leu	Arg	Tyr	Gly	Ser
				335					340					345
Pro	Glu	Ser	Ala	Ala	His	Leu	Ile	Gln	Ala	Ser	Glu	Arg	Arg	Val
				350					355					360
His	Leu	Val	Val	Ser	Arg	Gln	Val	Arg	Gln	Arg	Ser	Pro	Asp	Ile
				365					370					375
Phe	Gln	Glu	Ala	Gly	Trp	Asn	Ser	Asn	Gly	Ser	Trp	Ser	Pro	Gly

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Pro	Gly	Glu	Arg	Ser	Asn	Thr	Pro	Lys	Pro	Leu	His	Pro	Thr	Ile
				395					400					405
Thr	Cys	His	Glu	Lys	Val	Val	Asn	Ile	Gln	Lys	Asp	Pro	Gly	Glu
				410					415					420
Ser	Leu	Gly	Met	Thr	Val	Ala	Gly	Gly	Ala	Ser	His	Arg	Glu	Trp
				425					430					435
Asp	Leu	Pro	Ile	Tyr	Val	Ile	Ser	Val	Glu	Pro	Gly	Gly	Val	Ile
				440					445					450
Ser	Arg	Asp	Gly	Arg	Ile	Lys	Thr	Gly	Asp	Ile	Leu	Leu	Asn	Val
				455					460					465
Asp	Gly	Val	Glu	Leu	Thr	Glu	Val	Ser	Arg	Ser	Glu	Ala	Val	Ala
				470					475					480
Leu	Leu	Lys	Arg	Thr	Ser	Ser	Ser	Ile	Val	Leu	Lys	Ala	Leu	Glu
				485					490					495
Val	Lys	Glu	Tyr	Glu	Pro	Gln	Glu	Asp	Cys	Ser	Ser	Pro	Ala	Ala
				500					505					510
Leu	Asp	Ser	Asn	His	Asn	Met	Ala	Pro	Pro	Ser	Asp	Trp	Ser	Pro
				515					520					525
Ser	Trp	Val	Met	Trp	Leu	Glu	Leu	Pro	Arg	Cys	Leu	Tyr	Asn	Cys
				530					535					540
Lys	Asp	Ile	Val	Leu	Arg	Arg	Asn	Thr	Ala	Gly	Ser	Leu	Gly	Phe
				545					550					555
Cys	Ile	Val	Gly	Gly	Tyr	Glu	Glu	Tyr	Asn	Gly	Asn	Lys	Pro	Phe
				560					565					570
Phe	Ile	Lys	Ser	Ile	Val	Glu	Gly	Thr	Pro	Ala	Tyr	Asn	Asp	Gly
				575					580					585
Arg	Ile	Arg	Cys	Gly	Asp	Ile	Leu	Leu	Ala	Val	Asn	Gly	Arg	Ser
				590					595					600
Thr	Ser	Gly	Met	Ile	His	Ala	Cys	Leu	Ala	Arg	Leu	Leu	Lys	Glu
				605					610					615
Leu	Lys	Gly	Arg	Ile	Thr	Leu	Thr	Ile	Val	Ser	Trp	Pro	Gly	Thr
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Phe Leu

<210> 41
 <211> 1964
 <212> DNA
 <213> Homo Sapien

<400> 41
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 gatctcactt tggaagaggt acaggcagaa aatcccaaag tgtccagagg 450
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 ttccccaccg gaacagagag aaacacctga tgtacctgct ggaacatctg 550
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<210> 42
 <211> 344
 <212> PRT
 <213> Homo Sapien

<400> 42
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 35 40 45
 Glu Phe Met Ala Asn Phe His Lys Thr Leu Ile Leu Gly Lys Gly
 50 55 60
 Lys Thr Leu Thr Asn Glu Ala Ser Thr Lys Lys Val Glu Leu Asp
 65 70 75
 Asn Cys Pro Ser Val Ser Pro Tyr Leu Arg Gly Gln Ser Lys Leu
 80 85 90
 Ile Phe Lys Pro Asp Leu Thr Leu Glu Glu Val Gln Ala Glu Asn
 95 100 105
 Pro Lys Val Ser Arg Gly Arg Tyr Arg Pro Gln Glu Cys Lys Ala
 110 115 120
 Leu Gln Arg Val Ala Ile Leu Val Pro His Arg Asn Arg Glu Lys
 125 130 135
 His Leu Met Tyr Leu Leu Glu His Leu His Pro Phe Leu Gln Arg
 140 145 150
 Gln Gln Leu Asp Tyr Gly Ile Tyr Val Ile His Gln Ala Glu Gly
 155 160 165
 Lys Lys Phe Asn Arg Ala Lys Leu Leu Asn Val Gly Tyr Leu Glu
 170 175 180
 Ala Leu Lys Glu Glu Asn Trp Asp Cys Phe Ile Phe His Asp Val
 185 190 195
 Asp Leu Val Pro Glu Asn Asp Phe Asn Leu Tyr Lys Cys Glu Glu
 200 205 210
 His Pro Lys His Leu Val Val Gly Arg Asn Ser Thr Gly Tyr Arg
 215 220 225

Leu Arg Tyr Ser Gly Tyr Phe Gly Gly Val Thr Ala Leu Ser Arg
 230 235 240
 Glu Gln Phe Phe Lys Val Asn Gly Phe Ser Asn Asn Tyr Trp Gly
 245 250 255
 Trp Gly Gly Glu Asp Asp Asp Leu Arg Leu Arg Val Glu Leu Gln
 260 265 270
 Arg Met Lys Ile Ser Arg Pro Leu Pro Glu Val Gly Lys Tyr Thr
 275 280 285
 Met Val Phe His Thr Arg Asp Lys Gly Asn Glu Val Asn Ala Glu
 290 295 300
 Arg Met Lys Leu Leu His Gln Val Ser Arg Val Trp Arg Thr Asp
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<210> 43
 <211> 485
 <212> DNA
 <213> Homo Sapien

<400> 43
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 450
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 485

<210> 44
 <211> 84
 <212> PRT
 <213> Homo Sapien

<400> 44
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 Thr Gly Gln Leu Ala Glu Leu Gln Pro Gln Asp Arg Ala Gly Ala

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Arg	Ala	Ser	Trp	Met	Pro	Met	Phe	Gln	Arg	Arg	Arg	Arg	Arg	Asp
	50								55					60
Thr	His	Phe	Pro	Ile	Cys	Ile	Phe	Cys	Cys	Gly	Cys	Cys	His	Arg
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Ser	Lys	Cys	Gly	Met	Cys	Cys	Lys	Thr						
				80										

<210> 45
 <211> 1076
 <212> DNA
 <213> Homo Sapien

<400> 45
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 tcaacacaaac cctcttctg accatacagc cagaaggggg cactatcata 250
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 ctccctgaag ctacgcaaac tgaagaagaa tgactcaggg atctactatg 350
 tggggatata cagctcatca ctccagcagc cctccacca ggagtaactg 400
 ctgcatgtct acgagcacct gtcaaagcct aaagtcacca tgggtctgca 450
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 tctcaagccc catccttgcc aggaagctct gtgaaggtgc tgctgatgac 700
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 cctaacatat gccccattc tggagagAAC acagagtacg acacaatccc 900
 tcacactaat agaacaatcc taaaggaaga tccagcaaat acggtttact 950
 ccactgtgga aataccgaaa aagatggaaa atccccactc actgctcacg 1000
 atgccagaca caccaaggct atttgcctat gagaatgtta tctagacagc 1050
 agtgactccc cctaagtctc tgetca 1076

<210> 46
 <211> 335

<212> PRT
 <213> Homo Sapien

<400> 46

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Gly	Ser	Val	Gly	Gly	Ala	Val	Thr	Phe	Pro	Leu	Lys	Ser	Lys	Val	35	40	45	
Lys	Gln	Val	Asp	Ser	Ile	Val	Trp	Thr	Phe	Asn	Thr	Thr	Pro	Leu	50	55	60	
Val	Thr	Ile	Gln	Pro	Glu	Gly	Gly	Thr	Ile	Ile	Val	Thr	Gln	Asn	65	70	75	
Arg	Asn	Arg	Glu	Arg	Val	Asp	Phe	Pro	Asp	Gly	Gly	Tyr	Ser	Leu	80	85	90	
Lys	Leu	Ser	Lys	Leu	Lys	Lys	Asn	Asp	Ser	Gly	Ile	Tyr	Tyr	Val	95	100	105	
Gly	Ile	Tyr	Ser	Ser	Ser	Leu	Gln	Gln	Pro	Ser	Thr	Gln	Glu	Tyr	110	115	120	
Val	Leu	His	Val	Tyr	Glu	His	Leu	Ser	Lys	Pro	Lys	Val	Thr	Met	125	130	135	
Gly	Leu	Gln	Ser	Asn	Lys	Asn	Gly	Thr	Cys	Val	Thr	Asn	Leu	Thr	140	145	150	
Cys	Cys	Met	Glu	His	Gly	Glu	Glu	Asp	Val	Ile	Tyr	Thr	Trp	Lys	155	160	165	
Ala	Leu	Gly	Gln	Ala	Ala	Asn	Glu	Ser	His	Asn	Gly	Ser	Ile	Leu	170	175	180	
Pro	Ile	Ser	Trp	Arg	Trp	Gly	Glu	Ser	Asp	Met	Thr	Phe	Ile	Cys	185	190	195	
Val	Ala	Arg	Asn	Pro	Val	Ser	Arg	Asn	Phe	Ser	Ser	Pro	Ile	Leu	200	205	210	
Ala	Arg	Lys	Leu	Cys	Glu	Gly	Ala	Ala	Asp	Asp	Pro	Asp	Ser	Ser	215	220	225	
Met	Val	Leu	Leu	Cys	Leu	Leu	Leu	Val	Pro	Leu	Leu	Leu	Ser	Leu	230	235	240	
Phe	Val	Leu	Gly	Leu	Phe	Leu	Trp	Phe	Leu	Lys	Arg	Glu	Arg	Gln	245	250	255	
Glu	Glu	Tyr	Ile	Glu	Glu	Lys	Lys	Arg	Val	Asp	Ile	Cys	Arg	Glu	260	265	270	
Thr	Pro	Asn	Ile	Cys	Pro	His	Ser	Gly	Glu	Asn	Thr	Glu	Tyr	Asp	275	280	285	
Thr	Ile	Pro	His	Thr	Asn	Arg	Thr	Ile	Leu	Lys	Glu	Asp	Pro	Ala	290	295	300	

Asn Thr Val Tyr Ser Thr Val Glu Ile Pro Lys Lys Met Glu Asn
 305 310 315

Pro His Ser Leu Leu Thr Met Pro Asp Thr Pro Arg Leu Phe Ala
 320 325 330

Tyr Glu Asn Val Ile
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<210> 47
 <211> 766
 <212> DNA
 <213> Homo Sapien

<400> 47
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 ttctcaatgc gatacctcta attgtcagct tagttgagga agaccaatth 150
 tctcaaaacc ccatctcttg ctttgagtgg tggttcccag gaattatagg 200
 agcaggtctg atggccattc cagcaacaac aatgtccttg acagcaagaa 250
 aaagagcgtg ctgcaacaac agaactggaa tgtttctttc atcatttttc 300
 agtgtgatca cagtcattgg tgctctgtat tgcattgctga tatccatcca 350
 ggctctctta aaaggctctc tcatgtgtaa ttctccaagc aacagtaatg 400
 ccaattgtga attttcattg aaaaacatca gtgacattca tccagaatcc 450
 ttcaacttgc agtgggtttt caatgactct tgtgcacctc ctactgggtt 500
 caataaacc accagtaacg acaccatggc gagtggctgg agagcatcta 550
 gtttccactt cgattctgaa gaaaacaaac ataggcttat ccacttctca 600
 gtatttttag gtctattgct tggttgaatt ctggaggtcc tgtttgggct 650
 cagtcagata gtcattcggtt tccttggtctg tctgtgtgga gtctctaagc 700
 gaagaagtca aattgtgtag tttaatggga ataaaatgta agtatcagta 750
 gtttgaaaaa aaaaaa 766

<210> 48
 <211> 229
 <212> PRT
 <213> Homo Sapien

<400> 48
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 20 25 30
 Ile Val Ser Leu Val Glu Glu Asp Gln Phe Ser Gln Asn Pro Ile
 35 40 45
 Ser Cys Phe Glu Trp Trp Phe Pro Gly Ile Ile Gly Ala Gly Leu

50										55					60				
Met	Ala	Ile	Pro	Ala	Thr	Thr	Met	Ser	Leu	Thr	Ala	Arg	Lys	Arg					
				65					70					75					
Ala	Cys	Cys	Asn	Asn	Arg	Thr	Gly	Met	Phe	Leu	Ser	Ser	Phe	Phe					
			80						85					90					
Ser	Val	Ile	Thr	Val	Ile	Gly	Ala	Leu	Tyr	Cys	Met	Leu	Ile	Ser					
			95						100					105					
Ile	Gln	Ala	Leu	Leu	Lys	Gly	Pro	Leu	Met	Cys	Asn	Ser	Pro	Ser					
			110						115					120					
Asn	Ser	Asn	Ala	Asn	Cys	Glu	Phe	Ser	Leu	Lys	Asn	Ile	Ser	Asp					
			125						130					135					
Ile	His	Pro	Glu	Ser	Phe	Asn	Leu	Gln	Trp	Phe	Phe	Asn	Asp	Ser					
			140						145					150					
Cys	Ala	Pro	Pro	Thr	Gly	Phe	Asn	Lys	Pro	Thr	Ser	Asn	Asp	Thr					
			155						160					165					
Met	Ala	Ser	Gly	Trp	Arg	Ala	Ser	Ser	Phe	His	Phe	Asp	Ser	Glu					
			170						175					180					
Glu	Asn	Lys	His	Arg	Leu	Ile	His	Phe	Ser	Val	Phe	Leu	Gly	Leu					
			185						190					195					
Leu	Leu	Val	Gly	Ile	Leu	Glu	Val	Leu	Phe	Gly	Leu	Ser	Gln	Ile					
			200						205					210					
Val	Ile	Gly	Phe	Leu	Gly	Cys	Leu	Cys	Gly	Val	Ser	Lys	Arg	Arg					
			215						220					225					

Ser Gln Ile Val

<210> 49
 <211> 636
 <212> DNA
 <213> Homo Sapien

<400> 49
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 ctgaccaatt gagctgtgag cctggagcag atccgtgggc tgcagacccc 150
 cgccccagtg cctctcccc tgcagccctg cccctcgaac tgtgacatgg 200
 agagagtgac cctggccctt ctctactgg caggcctgac tgccttggaa 250
 gccaatgacc catttgccaa taaagacgat cccttctact atgactggaa 300
 aaacctgcag ctgagcggac tgatctgcgg agggctcctg gccattgctg 350
 ggatcgcggc agttctgagt ggcaaagca aatacaagag cagccagaag 400
 cagcacagtc ctgtacctga gaaggccatc ccactcatca ctccaggctc 450
 tgccactact tgctgagcac aggactggcc tccagggatg gcctgaagcc 500

taacactggc cccagcacc tcctcccctg ggaggcctta tcctcaagga 550
aggacttctc tccaagggca ggctgttagg cccctttctg atcaggaggc 600
ttctttatga attaaactcg cccaccacc ccctca 636

<210> 50
<211> 89
<212> PRT
<213> Homo Sapien

<400> 50
Met Glu Arg Val Thr Leu Ala Leu Leu Leu Ala Gly Leu Thr
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Ala Leu Glu Ala Asn Asp Pro Phe Ala Asn Lys Asp Asp Pro Phe
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Tyr Tyr Asp Trp Lys Asn Leu Gln Leu Ser Gly Leu Ile Cys Gly
35 40 45
Gly Leu Leu Ala Ile Ala Gly Ile Ala Ala Val Leu Ser Gly Lys
50 55 60
Cys Lys Tyr Lys Ser Ser Gln Lys Gln His Ser Pro Val Pro Glu
65 70 75
Lys Ala Ile Pro Leu Ile Thr Pro Gly Ser Ala Thr Thr Cys
80 85

<210> 51
<211> 1734
<212> DNA
<213> Homo Sapien

<400> 51
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gcacagagac gcagagcaag ggcggcaagg aggagaccct ggtgggagga 150
agacactctg gagagagagg gggctgggca gagatgaagt tccaggggcc 200
cctggcctgc ctctgtctgg ccctctgcct gggcagtgagg gaggtggcc 250
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ggacatggcc tgggagacgc cctgagcgaa ggggtgggaa aggccattgg 350
caaagaggcc ggaggggagc ctggctctaa agtcagtgag gcccttggcc 400
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ccttgagggc cagggccagg gcaatcctgg aggtctgggg actccgtggg 700

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tccacggata ccccggaac tcagcaggca gctttggaat gaatcctcag 750
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cagtggcagc aatggtgaca acaacaatgg cagcagcagt ggtggcagca 1000
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ccgtgacctc cagacaagga gccaccagat tggatgggag cccccacact 1550
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1700
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1734

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<210> 52
<211> 440
<212> PRT
<213> Homo Sapien

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<400> 52
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Leu Gly Ser Gly Glu Ala Gly Pro Leu Gln Ser Gly Glu Glu Ser
                      20                      25                      30
Thr Gly Thr Asn Ile Gly Glu Ala Leu Gly His Gly Leu Gly Asp
                      35                      40                      45
Ala Leu Ser Glu Gly Val Gly Lys Ala Ile Gly Lys Glu Ala Gly
                      50                      55                      60
Gly Ala Ala Gly Ser Lys Val Ser Glu Ala Leu Gly Gln Gly Thr
                      65                      70                      75

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Arg	Glu	Ala	Val	Gly	Thr	Gly	Val	Arg	Gln	Val	Pro	Gly	Phe	Gly		80	85	90
Ala	Ala	Asp	Ala	Leu	Gly	Asn	Arg	Val	Gly	Glu	Ala	Ala	His	Ala		95	100	105
Leu	Gly	Asn	Thr	Gly	His	Glu	Ile	Gly	Arg	Gln	Ala	Glu	Asp	Val		110	115	120
Ile	Arg	His	Gly	Ala	Asp	Ala	Val	Arg	Gly	Ser	Trp	Gln	Gly	Val		125	130	135
Pro	Gly	His	Ser	Gly	Ala	Trp	Glu	Thr	Ser	Gly	Gly	His	Gly	Ile		140	145	150
Phe	Gly	Ser	Gln	Gly	Gly	Leu	Gly	Gly	Gln	Gly	Gln	Gly	Asn	Pro		155	160	165
Gly	Gly	Leu	Gly	Thr	Pro	Trp	Val	His	Gly	Tyr	Pro	Gly	Asn	Ser		170	175	180
Ala	Gly	Ser	Phe	Gly	Met	Asn	Pro	Gln	Gly	Ala	Pro	Trp	Gly	Gln		185	190	195
Gly	Gly	Asn	Gly	Gly	Pro	Pro	Asn	Phe	Gly	Thr	Asn	Thr	Gln	Gly		200	205	210
Ala	Val	Ala	Gln	Pro	Gly	Tyr	Gly	Ser	Val	Arg	Ala	Ser	Asn	Gln		215	220	225
Asn	Glu	Gly	Cys	Thr	Asn	Pro	Pro	Pro	Ser	Gly	Ser	Gly	Gly	Gly		230	235	240
Ser	Ser	Asn	Ser	Gly	Gly	Gly	Ser	Gly	Ser	Gln	Ser	Gly	Ser	Ser		245	250	255
Gly	Ser	Gly	Ser	Asn	Gly	Asp	Asn	Asn	Asn	Gly	Ser	Ser	Ser	Gly		260	265	270
Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Gly	Ser		275	280	285
Ser	Gly	Gly	Ser	Ser	Gly	Gly	Ser	Ser	Gly	Asn	Ser	Gly	Gly	Ser		290	295	300
Arg	Gly	Asp	Ser	Gly	Ser	Glu	Ser	Ser	Trp	Gly	Ser	Ser	Thr	Gly		305	310	315
Ser	Ser	Ser	Gly	Asn	His	Gly	Gly	Ser	Gly	Gly	Gly	Asn	Gly	His		320	325	330
Lys	Pro	Gly	Cys	Glu	Lys	Pro	Gly	Asn	Glu	Ala	Arg	Gly	Ser	Gly		335	340	345
Glu	Ser	Gly	Ile	Gln	Gly	Phe	Arg	Gly	Gln	Gly	Val	Ser	Ser	Asn		350	355	360
Met	Arg	Glu	Ile	Ser	Lys	Glu	Gly	Asn	Arg	Leu	Leu	Gly	Gly	Ser		365	370	375
Gly	Asp	Asn	Tyr	Arg	Gly	Gln	Gly	Ser	Ser	Trp	Gly	Ser	Gly	Gly		380	385	390

Gly	Asp	Ala	Val	Gly	Gly	Val	Asn	Thr	Val	Asn	Ser	Glu	Thr	Ser
				395					400					405
Pro	Gly	Met	Phe	Asn	Phe	Asp	Thr	Phe	Trp	Lys	Asn	Phe	Lys	Ser
				410					415					420
Lys	Leu	Gly	Phe	Ile	Asn	Trp	Asp	Ala	Ile	Asn	Lys	Asp	Gln	Arg
				425					430					435
Ser	Ser	Arg	Ile	Pro										
				440										

<210> 53
 <211> 1676
 <212> DNA
 <213> Homo Sapien

<400> 53
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 actcctgctg ctggttgtgg gctcctggct actcgccgc atcctggctt 150
 ggacctatgc cttctataac aactgccgc ggctccagtg tttccacag 200
 cccccaaac ggaactggtt ttgggggtcac ctgggcctga tcaactctac 250
 agaggagggc ttgaaggact cgacccagat gtcggccacc tattcccagg 300
 gctttacggg atggctgggt cccatcatcc ccttcacgt tttatgccac 350
 cctgacacca tccggtctat caccaatgcc tcagctgcca ttgcacccaa 400
 ggataatctc ttcacaggt tcctgaagcc ctggctggga gaagggatac 450
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 cagaaatgca tcttcagctt tgacagccat tgtcaggaga ggcccagtga 700
 atatattgcc accatcttgg agctcagtgc ccttgtagag aaaagaagcc 750
 agcatatcct ccagcacatg gactttctgt attacctctc ccatgacggg 800
 cggcgcttcc acagggcctg ccgcctggtg catgacttca cagacgctgt 850
 catccgggag cggcgctgca ccctcccccac tcagggtatt gatgattttt 900
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 gtcatgaata aaacggtgct gtcaaa 1676

<210> 54
 <211> 524
 <212> PRT
 <213> Homo Sapien

<400> 54
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 35 40 45
 Arg Arg Leu Gln Cys Phe Pro Gln Pro Pro Lys Arg Asn Trp Phe
 50 55 60
 Trp Gly His Leu Gly Leu Ile Thr Pro Thr Glu Glu Gly Leu Lys
 65 70 75
 Asp Ser Thr Gln Met Ser Ala Thr Tyr Ser Gln Gly Phe Thr Val
 80 85 90
 Trp Leu Gly Pro Ile Ile Pro Phe Ile Val Leu Cys His Pro Asp
 95 100 105
 Thr Ile Arg Ser Ile Thr Asn Ala Ser Ala Ala Ile Ala Pro Lys
 110 115 120
 Asp Asn Leu Phe Ile Arg Phe Leu Lys Pro Trp Leu Gly Glu Gly
 125 130 135
 Ile Leu Leu Ser Gly Gly Asp Lys Trp Ser Arg His Arg Arg Met
 140 145 150
 Leu Thr Pro Ala Phe His Phe Asn Ile Leu Lys Ser Tyr Ile Thr
 155 160 165
 Ile Phe Asn Lys Ser Ala Asn Ile Met Leu Asp Lys Trp Gln His
 170 175 180

Leu	Ala	Ser	Glu	Gly 185	Ser	Ser	Arg	Leu	Asp 190	Met	Phe	Glu	His	Ile 195
Ser	Leu	Met	Thr	Leu 200	Asp	Ser	Leu	Gln	Lys 205	Cys	Ile	Phe	Ser	Phe 210
Asp	Ser	His	Cys	Gln 215	Glu	Arg	Pro	Ser	Glu 220	Tyr	Ile	Ala	Thr	Ile 225
Leu	Glu	Leu	Ser	Ala 230	Leu	Val	Glu	Lys	Arg 235	Ser	Gln	His	Ile	Leu 240
Gln	His	Met	Asp	Phe 245	Leu	Tyr	Tyr	Leu	Ser 250	His	Asp	Gly	Arg	Arg 255
Phe	His	Arg	Ala	Cys 260	Arg	Leu	Val	His	Asp 265	Phe	Thr	Asp	Ala	Val 270
Ile	Arg	Glu	Arg	Arg 275	Arg	Thr	Leu	Pro	Thr 280	Gln	Gly	Ile	Asp	Asp 285
Phe	Phe	Lys	Asp	Lys 290	Ala	Lys	Ser	Lys	Thr 295	Leu	Asp	Phe	Ile	Asp 300
Val	Leu	Leu	Leu	Ser 305	Lys	Asp	Glu	Asp	Gly 310	Lys	Ala	Leu	Ser	Asp 315
Glu	Asp	Ile	Arg	Ala 320	Glu	Ala	Asp	Thr	Phe 325	Met	Phe	Gly	Gly	His 330
Asp	Thr	Thr	Ala	Ser 335	Gly	Leu	Ser	Trp	Val 340	Leu	Tyr	Asn	Leu	Ala 345
Arg	His	Pro	Glu	Tyr 350	Gln	Glu	Arg	Cys	Arg 355	Gln	Glu	Val	Gln	Glu 360
Leu	Leu	Lys	Asp	Arg 365	Asp	Pro	Lys	Glu	Ile 370	Glu	Trp	Asp	Asp	Leu 375
Ala	Gln	Leu	Pro	Phe 380	Leu	Thr	Met	Cys	Val 385	Lys	Glu	Ser	Leu	Arg 390
Leu	His	Pro	Pro	Ala 395	Pro	Phe	Ile	Ser	Arg 400	Cys	Cys	Thr	Gln	Asp 405
Ile	Val	Leu	Pro	Asp 410	Gly	Arg	Val	Ile	Pro 415	Lys	Gly	Ile	Thr	Cys 420
Leu	Ile	Asp	Ile	Ile 425	Gly	Val	His	His	Asn 430	Pro	Thr	Val	Trp	Pro 435
Asp	Pro	Glu	Val	Tyr 440	Asp	Pro	Phe	Arg	Phe 445	Asp	Pro	Glu	Asn	Ser 450
Lys	Gly	Arg	Ser	Pro 455	Leu	Ala	Phe	Ile	Pro 460	Phe	Ser	Ala	Gly	Pro 465
Arg	Asn	Cys	Ile	Gly 470	Gln	Ala	Phe	Ala	Met 475	Ala	Glu	Met	Lys	Val 480
Val	Leu	Ala	Leu	Met 485	Leu	Leu	His	Phe	Arg 490	Phe	Leu	Pro	Asp	His 495

Thr Glu Pro Arg Arg Lys Leu Glu Leu Ile Met Arg Ala Glu Gly
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Gly Leu Trp Leu Arg Val Glu Pro Leu Asn Val Gly Leu Gln
 515 520

<210> 55
 <211> 644
 <212> DNA
 <213> Homo Sapien

<400> 55
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 cttgcactta tcttctgcat tttgcagtct ttggcattga cgtggtacag 200
 cctttccttc ataccatttg caagggatgc tgtgaagaag tgttttgccg 250
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 cagtagcaca ggatgagaag tgggttctgt atcttggtga gtggaatctt 500
 cctcatgtac ctgtttcctc tctggatggt gtccactga attcccatga 550
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 644

<210> 56
 <211> 77
 <212> PRT
 <213> Homo Sapien

<400> 56
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 35 40 45
 Cys Ile Leu Gln Ser Leu Ala Leu Thr Trp Tyr Ser Leu Ser Phe
 50 55 60
 Ile Pro Phe Ala Arg Asp Ala Val Lys Lys Cys Phe Ala Val Cys
 65 70 75
 Leu Ala

<210> 57

<211> 3334
<212> DNA
<213> Homo Sapien

<400> 57
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cccagaccga gttccagtac tttgagtcga aggggctccc tgccgagctg 150
aagtccattt tcaagctcag tgtcttcac ccctcccagg aattctccac 200
ctaccgccag tggaagcaga aaattgtaca agctggagat aaggaccttg 250
atgggcagct agactttgaa gaatttgtcc attatctcca agatcatgag 300
aagaagctga ggctggtgtt taagattttg gacaaaaaga atgatggacg 350
cattgacgcg caggagatca tgcagtcctt gcgggacttg ggagtcaaga 400
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cgtggaaaac atccccgaga tcctcctcta ctggaagcat tcacgatct 550
ttgatgtggg tgagaatcta acggtcccgg atgagttcac agtggaggag 600
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 ggctggagga gaggggtggg ggctggctcc gtccctccca gccttctgct 3050

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gcccttgctt aacaatgccg gccaaactggc gacctcacgg ttgcacttcc 3100
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aattaagaaa gaattggacg ttagaagttg tcatttaaag cagccttcta 3250
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<210> 58
<211> 469
<212> PRT
<213> Homo Sapien

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<400> 58
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Thr Glu Phe Gln Tyr Phe Glu Ser Lys Gly Leu Pro Ala Glu Leu
          20          25          30

Lys Ser Ile Phe Lys Leu Ser Val Phe Ile Pro Ser Gln Glu Phe
          35          40          45

Ser Thr Tyr Arg Gln Trp Lys Gln Lys Ile Val Gln Ala Gly Asp
          50          55          60

Lys Asp Leu Asp Gly Gln Leu Asp Phe Glu Glu Phe Val His Tyr
          65          70          75

Leu Gln Asp His Glu Lys Lys Leu Arg Leu Val Phe Lys Ile Leu
          80          85          90

Asp Lys Lys Asn Asp Gly Arg Ile Asp Ala Gln Glu Ile Met Gln
          95         100         105

Ser Leu Arg Asp Leu Gly Val Lys Ile Ser Glu Gln Gln Ala Glu
         110         115         120

Lys Ile Leu Lys Ser Met Asp Lys Asn Gly Thr Met Thr Ile Asp
         125         130         135

Trp Asn Glu Trp Arg Asp Tyr His Leu Leu His Pro Val Glu Asn
         140         145         150

Ile Pro Glu Ile Ile Leu Tyr Trp Lys His Ser Thr Ile Phe Asp
         155         160         165

Val Gly Glu Asn Leu Thr Val Pro Asp Glu Phe Thr Val Glu Glu
         170         175         180

Arg Gln Thr Gly Met Trp Trp Arg His Leu Val Ala Gly Gly Gly
         185         190         195

Ala Gly Ala Val Ser Arg Thr Cys Thr Ala Pro Leu Asp Arg Leu
        200         205         210

Lys Val Leu Met Gln Val His Ala Ser Arg Ser Asn Asn Met Gly
        215         220         225

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Ile Val Gly Gly	Phe Thr Gln Met Ile Arg Glu Gly Gly Ala Arg	230	235	240
Ser Leu Trp Arg	Gly Asn Gly Ile Asn Val Leu Lys Ile Ala Pro	245	250	255
Glu Ser Ala Ile	Lys Phe Met Ala Tyr Glu Gln Ile Lys Arg Leu	260	265	270
Val Gly Ser Asp	Gln Glu Thr Leu Arg Ile His Glu Arg Leu Val	275	280	285
Ala Gly Ser Leu	Ala Gly Ala Ile Ala Gln Ser Ser Ile Tyr Pro	290	295	300
Met Glu Val Leu	Lys Thr Arg Met Ala Leu Arg Lys Thr Gly Gln	305	310	315
Tyr Ser Gly Met	Leu Asp Cys Ala Arg Arg Ile Leu Ala Arg Glu	320	325	330
Gly Val Ala Ala	Phe Tyr Lys Gly Tyr Val Pro Asn Met Leu Gly	335	340	345
Ile Ile Pro Tyr	Ala Gly Ile Asp Leu Ala Val Tyr Glu Thr Leu	350	355	360
Lys Asn Ala Trp	Leu Gln His Tyr Ala Val Asn Ser Ala Asp Pro	365	370	375
Gly Val Phe Val	Leu Leu Ala Cys Gly Thr Met Ser Ser Thr Cys	380	385	390
Gly Gln Leu Ala	Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg Met	395	400	405
Gln Ala Gln Ala	Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser	410	415	420
Ser Leu Phe Lys	His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu	425	430	435
Tyr Arg Gly Leu	Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val	440	445	450
Ser Ile Ser Tyr	Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly	455	460	465

Val Gln Ser Arg

<210> 59

<211> 1658

<212> DNA

<213> Homo Sapien

<400> 59

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gcatcatcat tattctggct ggagcaattg cactcatcat tggctttggt 150

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atttcagggga gacactccat cacagtcact actgtcgct cagctgggaa 200
cattgggggag gatggaatcc tgagctgcac ttttgaacct gacatcaaac 250
tttctgatat cgtgatacaa tggctgaagg aagggtgtttt aggcttggtc 300
catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt 350
cagaggccgg acagcagtgt ttgctgatca agtgatagtt ggcaatgcct 400
ctttgcggct gaaaaacgtg caactcacag atgctggcac ctacaaatgt 450
tatatcatca cttctaaagg caaggggaat gctaaccttg agtataaaac 500
tggagccttc agcatgccgg aagtgaatgt ggactataat gccagctcag 550
agaccttgcg gtgtgaggct ccccgatggg tccccagcc cacagtgggtc 600
tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatac 650
cagctttgag ctgaactctg agaatgtgac catgaagggt gtgtctgtgc 700
tctacaatgt tacgatcaac aacacatact cctgtatgat tgaaaatgac 750
attgccaaag caacagggga tatcaaagt acagaatcgg agatcaaaag 800
gcggagtcac ctacagctgc taaactcaaa ggcttctctg tgtgtctctt 850
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aattgactgc cacttcgcaa ctgaggggag gctgcatttt agtaatgggt 1450
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ttaaacaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1650
aaaaaaaa 1658

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<210> 60

<211> 282
 <212> PRT
 <213> Homo Sapien

<400> 60

Met	Ala	Ser	Leu	Gly	Gln	Ile	Leu	Phe	Trp	Ser	Ile	Ile	Ser	Ile		1	5	10	15
Ile	Ile	Ile	Leu	Ala	Gly	Ala	Ile	Ala	Leu	Ile	Ile	Gly	Phe	Gly		20	25	30	
Ile	Ser	Gly	Arg	His	Ser	Ile	Thr	Val	Thr	Thr	Val	Ala	Ser	Ala		35	40	45	
Gly	Asn	Ile	Gly	Glu	Asp	Gly	Ile	Leu	Ser	Cys	Thr	Phe	Glu	Pro		50	55	60	
Asp	Ile	Lys	Leu	Ser	Asp	Ile	Val	Ile	Gln	Trp	Leu	Lys	Glu	Gly		65	70	75	
Val	Leu	Gly	Leu	Val	His	Glu	Phe	Lys	Glu	Gly	Lys	Asp	Glu	Leu		80	85	90	
Ser	Glu	Gln	Asp	Glu	Met	Phe	Arg	Gly	Arg	Thr	Ala	Val	Phe	Ala		95	100	105	
Asp	Gln	Val	Ile	Val	Gly	Asn	Ala	Ser	Leu	Arg	Leu	Lys	Asn	Val		110	115	120	
Gln	Leu	Thr	Asp	Ala	Gly	Thr	Tyr	Lys	Cys	Tyr	Ile	Ile	Thr	Ser		125	130	135	
Lys	Gly	Lys	Gly	Asn	Ala	Asn	Leu	Glu	Tyr	Lys	Thr	Gly	Ala	Phe		140	145	150	
Ser	Met	Pro	Glu	Val	Asn	Val	Asp	Tyr	Asn	Ala	Ser	Ser	Glu	Thr		155	160	165	
Leu	Arg	Cys	Glu	Ala	Pro	Arg	Trp	Phe	Pro	Gln	Pro	Thr	Val	Val		170	175	180	
Trp	Ala	Ser	Gln	Val	Asp	Gln	Gly	Ala	Asn	Phe	Ser	Glu	Val	Ser		185	190	195	
Asn	Thr	Ser	Phe	Glu	Leu	Asn	Ser	Glu	Asn	Val	Thr	Met	Lys	Val		200	205	210	
Val	Ser	Val	Leu	Tyr	Asn	Val	Thr	Ile	Asn	Asn	Thr	Tyr	Ser	Cys		215	220	225	
Met	Ile	Glu	Asn	Asp	Ile	Ala	Lys	Ala	Thr	Gly	Asp	Ile	Lys	Val		230	235	240	
Thr	Glu	Ser	Glu	Ile	Lys	Arg	Arg	Ser	His	Leu	Gln	Leu	Leu	Asn		245	250	255	
Ser	Lys	Ala	Ser	Leu	Cys	Val	Ser	Ser	Phe	Phe	Ala	Ile	Ser	Trp		260	265	270	
Ala	Leu	Leu	Pro	Leu	Ser	Pro	Tyr	Leu	Met	Leu	Lys					275	280		

<210> 61

<211> 1617
<212> DNA
<213> Homo Sapien

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ttatgggggt cctgcccctg gagggcctta tggaccacca gctggtggag 200
ggccctatgg acaccccaat cctgggatgt tcccctctgg aactccagga 250
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ctcccaatgt ggatcctgag gcctactcct ggttccagtc ggtggactca 400
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<210> 62
 <211> 284
 <212> PRT
 <213> Homo Sapien

<400> 62
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 Gln Ala Pro Gly Ala Pro Pro Gly Ser Tyr Tyr Pro Gly Pro Pro
 20 25 30
 Asn Ser Gly Gly Gln Tyr Gly Ser Gly Leu Pro Pro Gly Gly Gly
 35 40 45
 Tyr Gly Gly Pro Ala Pro Gly Gly Pro Tyr Gly Pro Pro Ala Gly
 50 55 60
 Gly Gly Pro Tyr Gly His Pro Asn Pro Gly Met Phe Pro Ser Gly
 65 70 75
 Thr Pro Gly Gly Pro Tyr Gly Gly Ala Ala Pro Gly Gly Pro Tyr
 80 85 90
 Gly Gln Pro Pro Pro Ser Ser Tyr Gly Ala Gln Gln Pro Gly Leu
 95 100 105
 Tyr Gly Gln Gly Gly Ala Pro Pro Asn Val Asp Pro Glu Ala Tyr
 110 115 120
 Ser Trp Phe Gln Ser Val Asp Ser Asp His Ser Gly Tyr Ile Ser
 125 130 135
 Met Lys Glu Leu Lys Gln Ala Leu Val Asn Cys Asn Trp Ser Ser
 140 145 150
 Phe Asn Asp Glu Thr Cys Leu Met Met Ile Asn Met Phe Asp Lys
 155 160 165
 Thr Lys Ser Gly Arg Ile Asp Val Tyr Gly Phe Ser Ala Leu Trp
 170 175 180
 Lys Phe Ile Gln Gln Trp Lys Asn Leu Phe Gln Gln Tyr Asp Arg
 185 190 195
 Asp Arg Ser Gly Ser Ile Ser Tyr Thr Glu Leu Gln Gln Ala Leu
 200 205 210
 Ser Gln Met Gly Tyr Asn Leu Ser Pro Gln Phe Thr Gln Leu Leu
 215 220 225
 Val Ser Arg Tyr Cys Pro Arg Ser Ala Asn Pro Ala Met Gln Leu
 230 235 240
 Asp Arg Phe Ile Gln Val Cys Thr Gln Leu Gln Val Leu Thr Glu

	245		250		255
Ala Phe Arg Glu Lys Asp Thr Ala Val Gln Gly Asn Ile Arg Leu					
	260		265		270
Ser Phe Glu Asp Phe Val Thr Met Thr Ala Ser Arg Met Leu					
	275		280		

<210> 63
 <211> 1234
 <212> DNA
 <213> Homo Sapien

<400> 63
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1200
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 1234

<210> 64
 <211> 325
 <212> PRT
 <213> Homo Sapien

<400> 64
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 Leu Val Cys Leu His Leu Pro Gly Leu Phe Ala Arg Ser Ile Gly
 20 25 30
 Val Val Glu Glu Lys Val Ser Gln Asn Phe Gly Thr Asn Leu Pro
 35 40 45
 Gln Leu Gly Gln Pro Ser Ser Thr Gly Pro Ser Asn Ser Glu His
 50 55 60
 Pro Gln Pro Ala Leu Asp Pro Arg Ser Asn Asp Leu Ala Arg Val
 65 70 75
 Pro Leu Lys Leu Ser Val Pro Pro Ser Asp Gly Phe Pro Pro Ala
 80 85 90
 Gly Gly Ser Ala Val Gln Arg Trp Pro Pro Ser Trp Gly Leu Pro
 95 100 105
 Ala Met Asp Ser Trp Pro Pro Glu Asp Pro Trp Gln Met Met Ala
 110 115 120
 Ala Ala Ala Glu Asp Arg Leu Gly Glu Ala Leu Pro Glu Glu Leu
 125 130 135
 Ser Tyr Leu Ser Ser Ala Ala Ala Leu Ala Pro Gly Ser Gly Pro
 140 145 150
 Leu Pro Gly Glu Ser Ser Pro Asp Ala Thr Gly Leu Ser Pro Glu
 155 160 165
 Ala Ser Leu Leu His Gln Asp Ser Glu Ser Arg Arg Leu Pro Arg
 170 175 180
 Ser Asn Ser Leu Gly Ala Gly Gly Lys Ile Leu Ser Gln Arg Pro
 185 190 195
 Pro Trp Ser Leu Ile His Arg Val Leu Pro Asp His Pro Trp Gly
 200 205 210
 Thr Leu Asn Pro Ser Val Ser Trp Gly Gly Gly Gly Pro Gly Thr
 215 220 225
 Gly Trp Gly Thr Arg Pro Met Pro His Pro Glu Gly Ile Trp Gly
 230 235 240
 Ile Asn Asn Gln Pro Pro Gly Thr Ser Trp Gly Asn Ile Asn Arg
 245 250 255
 Tyr Pro Gly Gly Ser Trp Gly Asn Ile Asn Arg Tyr Pro Gly Gly
 260 265 270
 Ser Trp Gly Asn Ile Asn Arg Tyr Pro Gly Gly Ser Trp Gly Asn
 275 280 285

Ile	His	Leu	Tyr	Pro	Gly	Ile	Asn	Asn	Pro	Phe	Pro	Pro	Gly	Val
				290					295					300
Leu	Arg	Pro	Pro	Gly	Ser	Ser	Trp	Asn	Ile	Pro	Ala	Gly	Phe	Pro
				305					310					315
Asn	Pro	Pro	Ser	Pro	Arg	Leu	Gln	Trp	Gly					
				320					325					

<210> 65
 <211> 422
 <212> DNA
 <213> Homo Sapien

<400> 65
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 gcagctcaca tggaacaggg ccgggtatga ctttgcaact gaagctgaag 150
 gagtcttttc tgacaaattc ctccatgag tccagcttcc tggaattgct 200
 tgaaaagctc tgccctctcc tccatctccc ttcagggacc agcgtcaccc 250
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 ttgaagcctg tgtccttctt ggcccgggct tttgggccgg ggatgcagga 350
 ggcaggcccc gaccctgtct ttcagcaggc cccaccctc ctgagtggca 400
 ataaataaaa ttcggtatgc tg 422

<210> 66
 <211> 78
 <212> PRT
 <213> Homo Sapien

Met	Gly	Ser	Gly	Leu	Pro	Leu	Val	Leu	Leu	Leu	Thr	Leu	Leu	Gly
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Ser	Ser	His	Gly	Thr	Gly	Pro	Gly	Met	Thr	Leu	Gln	Leu	Lys	Leu
				20				25						30
Lys	Glu	Ser	Phe	Leu	Thr	Asn	Ser	Ser	Tyr	Glu	Ser	Ser	Phe	Leu
				35				40						45
Glu	Leu	Leu	Glu	Lys	Leu	Cys	Leu	Leu	Leu	His	Leu	Pro	Ser	Gly
				50				55						60
Thr	Ser	Val	Thr	Leu	His	His	Ala	Arg	Ser	Gln	His	His	Val	Val
				65				70						75
Cys	Asn	Thr												

<210> 67
 <211> 744
 <212> DNA
 <213> Homo Sapien

<400> 67

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gcggtaggag gggcgagcgc gagaagcccc ttctctggcg ctgccaaccc 150
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<210> 68
<211> 123
<212> PRT
<213> Homo Sapien

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<400> 68
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              20              25              30
Thr Ser Ala Asn Glu Asn Ser Thr Val Leu Pro Ser Ser Thr Ser
              35              40              45
Ser Ser Ser Asp Gly Asn Leu Arg Pro Glu Ala Ile Thr Ala Ile
              50              55              60
Ile Val Val Phe Ser Leu Leu Ala Ala Leu Leu Leu Ala Val Gly
              65              70              75
Leu Ala Leu Leu Val Arg Lys Leu Arg Glu Lys Arg Gln Thr Glu
              80              85              90
Gly Thr Tyr Arg Pro Ser Ser Glu Glu Gln Phe Ser His Ala Ala
              95              100             105
Glu Ala Arg Ala Pro Gln Asp Ser Lys Glu Thr Val Gln Gly Cys
              110             115             120
Leu Pro Ile

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<210> 69
<211> 3265
<212> DNA
<213> Homo Sapien

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ccagaagatg aaaaaataat tgaacaaata gaggatatgg tgactacagc 200
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<210> 70
 <211> 919
 <212> PRT
 <213> Homo Sapien

<400> 70
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 Phe Glu Asp Ile Val Ile Val Ile Asp Pro Ser Val Pro Glu Asp
 35 40 45
 Glu Lys Ile Ile Glu Gln Ile Glu Asp Met Val Thr Thr Ala Ser
 50 55 60
 Thr Tyr Leu Phe Glu Ala Thr Glu Lys Arg Phe Phe Phe Lys Asn
 65 70 75
 Val Ser Ile Leu Ile Pro Glu Asn Trp Lys Glu Asn Pro Gln Tyr
 80 85 90
 Lys Arg Pro Lys His Glu Asn His Lys His Ala Asp Val Ile Val
 95 100 105
 Ala Pro Pro Thr Leu Pro Gly Arg Asp Glu Pro Tyr Thr Lys Gln
 110 115 120
 Phe Thr Glu Cys Gly Glu Lys Gly Glu Tyr Ile His Phe Thr Pro
 125 130 135
 Asp Leu Leu Leu Gly Lys Lys Gln Asn Glu Tyr Gly Pro Pro Gly
 140 145 150
 Lys Leu Phe Val His Glu Trp Ala His Leu Arg Trp Gly Val Phe
 155 160 165
 Asp Glu Tyr Asn Glu Asp Gln Pro Phe Tyr Arg Ala Lys Ser Lys
 170 175 180
 Lys Ile Glu Ala Thr Arg Cys Ser Ala Gly Ile Ser Gly Arg Asn
 185 190 195
 Arg Val Tyr Lys Cys Gln Gly Gly Ser Cys Leu Ser Arg Ala Cys
 200 205 210
 Arg Ile Asp Ser Thr Thr Lys Leu Tyr Gly Lys Asp Cys Gln Phe
 215 220 225
 Phe Pro Asp Lys Val Gln Thr Glu Lys Ala Ser Ile Met Phe Met
 230 235 240

Gln Ser Ile Asp	Ser Val Val Glu Phe Cys Asn Glu Lys Thr His	245	250	255
Asn Gln Glu Ala	Pro Ser Leu Gln Asn Ile Lys Cys Asn Phe Arg	260	265	270
Ser Thr Trp Glu	Val Ile Ser Asn Ser Glu Asp Phe Lys Asn Thr	275	280	285
Ile Pro Met Val	Thr Pro Pro Pro Pro Pro Val Phe Ser Leu Leu	290	295	300
Lys Ile Ser Gln	Arg Ile Val Cys Leu Val Leu Asp Lys Ser Gly	305	310	315
Ser Met Gly Gly	Lys Asp Arg Leu Asn Arg Met Asn Gln Ala Ala	320	325	330
Lys His Phe Leu	Leu Gln Thr Val Glu Asn Gly Ser Trp Val Gly	335	340	345
Met Val His Phe	Asp Ser Thr Ala Thr Ile Val Asn Lys Leu Ile	350	355	360
Gln Ile Lys Ser	Ser Asp Glu Arg Asn Thr Leu Met Ala Gly Leu	365	370	375
Pro Thr Tyr Pro	Leu Gly Gly Thr Ser Ile Cys Ser Gly Ile Lys	380	385	390
Tyr Ala Phe Gln	Val Ile Gly Glu Leu His Ser Gln Leu Asp Gly	395	400	405
Ser Glu Val Leu	Leu Leu Thr Asp Gly Glu Asp Asn Thr Ala Ser	410	415	420
Ser Cys Ile Asp	Glu Val Lys Gln Ser Gly Ala Ile Val His Phe	425	430	435
Ile Ala Leu Gly	Arg Ala Ala Asp Glu Ala Val Ile Glu Met Ser	440	445	450
Lys Ile Thr Gly	Gly Ser His Phe Tyr Val Ser Asp Glu Ala Gln	455	460	465
Asn Asn Gly Leu	Ile Asp Ala Phe Gly Ala Leu Thr Ser Gly Asn	470	475	480
Thr Asp Leu Ser	Gln Lys Ser Leu Gln Leu Glu Ser Lys Gly Leu	485	490	495
Thr Leu Asn Ser	Asn Ala Trp Met Asn Asp Thr Val Ile Ile Asp	500	505	510
Ser Thr Val Gly	Lys Asp Thr Phe Phe Leu Ile Thr Trp Asn Ser	515	520	525
Leu Pro Pro Ser	Ile Ser Leu Trp Asp Pro Ser Gly Thr Ile Met	530	535	540
Glu Asn Phe Thr	Val Asp Ala Thr Ser Lys Met Ala Tyr Leu Ser	545	550	555

Ile	Pro	Gly	Thr	Ala	Lys	Val	Gly	Thr	Trp	Ala	Tyr	Asn	Leu	Gln	560	565	570
Ala	Lys	Ala	Asn	Pro	Glu	Thr	Leu	Thr	Ile	Thr	Val	Thr	Ser	Arg	575	580	585
Ala	Ala	Asn	Ser	Ser	Val	Pro	Pro	Ile	Thr	Val	Asn	Ala	Lys	Met	590	595	600
Asn	Lys	Asp	Val	Asn	Ser	Phe	Pro	Ser	Pro	Met	Ile	Val	Tyr	Ala	605	610	615
Glu	Ile	Leu	Gln	Gly	Tyr	Val	Pro	Val	Leu	Gly	Ala	Asn	Val	Thr	620	625	630
Ala	Phe	Ile	Glu	Ser	Gln	Asn	Gly	His	Thr	Glu	Val	Leu	Glu	Leu	635	640	645
Leu	Asp	Asn	Gly	Ala	Gly	Ala	Asp	Ser	Phe	Lys	Asn	Asp	Gly	Val	650	655	660
Tyr	Ser	Arg	Tyr	Phe	Thr	Ala	Tyr	Thr	Glu	Asn	Gly	Arg	Tyr	Ser	665	670	675
Leu	Lys	Val	Arg	Ala	His	Gly	Gly	Ala	Asn	Thr	Ala	Arg	Leu	Lys	680	685	690
Leu	Arg	Pro	Pro	Leu	Asn	Arg	Ala	Ala	Tyr	Ile	Pro	Gly	Trp	Val	695	700	705
Val	Asn	Gly	Glu	Ile	Glu	Ala	Asn	Pro	Pro	Arg	Pro	Glu	Ile	Asp	710	715	720
Glu	Asp	Thr	Gln	Thr	Thr	Leu	Glu	Asp	Phe	Ser	Arg	Thr	Ala	Ser	725	730	735
Gly	Gly	Ala	Phe	Val	Val	Ser	Gln	Val	Pro	Ser	Leu	Pro	Leu	Pro	740	745	750
Asp	Gln	Tyr	Pro	Pro	Ser	Gln	Ile	Thr	Asp	Leu	Asp	Ala	Thr	Val	755	760	765
His	Glu	Asp	Lys	Ile	Ile	Leu	Thr	Trp	Thr	Ala	Pro	Gly	Asp	Asn	770	775	780
Phe	Asp	Val	Gly	Lys	Val	Gln	Arg	Tyr	Ile	Ile	Arg	Ile	Ser	Ala	785	790	795
Ser	Ile	Leu	Asp	Leu	Arg	Asp	Ser	Phe	Asp	Asp	Ala	Leu	Gln	Val	800	805	810
Asn	Thr	Thr	Asp	Leu	Ser	Pro	Lys	Glu	Ala	Asn	Ser	Lys	Glu	Ser	815	820	825
Phe	Ala	Phe	Lys	Pro	Glu	Asn	Ile	Ser	Glu	Glu	Asn	Ala	Thr	His	830	835	840
Ile	Phe	Ile	Ala	Ile	Lys	Ser	Ile	Asp	Lys	Ser	Asn	Leu	Thr	Ser	845	850	855
Lys	Val	Ser	Asn	Ile	Ala	Gln	Val	Thr	Leu	Phe	Ile	Pro	Gln	Ala	860	865	870

Asn	Pro	Asp	Asp	Ile	Asp	Pro	Thr	Pro	Thr	Pro	Thr	Pro	Thr	Pro	
				875					880					885	
Thr	Pro	Asp	Lys	Ser	His	Asn	Ser	Gly	Val	Asn	Ile	Ser	Thr	Leu	
				890					895					900	
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Ser Thr Thr Ile

<210> 71
 <211> 3877
 <212> DNA
 <213> Homo Sapien

<400> 71
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<210> 72

<211> 532

<212> PRT

<213> Homo Sapien

<400> 72

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Val	Val	Leu	Leu	Val	Leu	Leu	Cys	Cys	Ala	Ile	Ser	Val	Leu	Tyr
				20					25					30

Met	Leu	Ala	Cys	Thr	Pro	Lys	Gly	Asp	Glu	Glu	Gln	Leu	Ala	Leu
				35					40					45

Pro	Arg	Ala	Asn	Ser	Pro	Thr	Gly	Lys	Glu	Gly	Tyr	Gln	Ala	Val
				50					55					60

Leu	Gln	Glu	Trp	Glu	Glu	Gln	His	Arg	Asn	Tyr	Val	Ser	Ser	Leu	65	70	75
Lys	Arg	Gln	Ile	Ala	Gln	Leu	Lys	Glu	Glu	Leu	Gln	Glu	Arg	Ser	80	85	90
Glu	Gln	Leu	Arg	Asn	Gly	Gln	Tyr	Gln	Ala	Ser	Asp	Ala	Ala	Gly	95	100	105
Leu	Gly	Leu	Asp	Arg	Ser	Pro	Pro	Glu	Lys	Thr	Gln	Ala	Asp	Leu	110	115	120
Leu	Ala	Phe	Leu	His	Ser	Gln	Val	Asp	Lys	Ala	Glu	Val	Asn	Ala	125	130	135
Gly	Val	Lys	Leu	Ala	Thr	Glu	Tyr	Ala	Ala	Val	Pro	Phe	Asp	Ser	140	145	150
Phe	Thr	Leu	Gln	Lys	Val	Tyr	Gln	Leu	Glu	Thr	Gly	Leu	Thr	Arg	155	160	165
His	Pro	Glu	Glu	Lys	Pro	Val	Arg	Lys	Asp	Lys	Arg	Asp	Glu	Leu	170	175	180
Val	Glu	Ala	Ile	Glu	Ser	Ala	Leu	Glu	Thr	Leu	Asn	Asn	Pro	Ala	185	190	195
Glu	Asn	Ser	Pro	Asn	His	Arg	Pro	Tyr	Thr	Ala	Ser	Asp	Phe	Ile	200	205	210
Glu	Gly	Ile	Tyr	Arg	Thr	Glu	Arg	Asp	Lys	Gly	Thr	Leu	Tyr	Glu	215	220	225
Leu	Thr	Phe	Lys	Gly	Asp	His	Lys	His	Glu	Phe	Lys	Arg	Leu	Ile	230	235	240
Leu	Phe	Arg	Pro	Phe	Ser	Pro	Ile	Met	Lys	Val	Lys	Asn	Glu	Lys	245	250	255
Leu	Asn	Met	Ala	Asn	Thr	Leu	Ile	Asn	Val	Ile	Val	Pro	Leu	Ala	260	265	270
Lys	Arg	Val	Asp	Lys	Phe	Arg	Gln	Phe	Met	Gln	Asn	Phe	Arg	Glu	275	280	285
Met	Cys	Ile	Glu	Gln	Asp	Gly	Arg	Val	His	Leu	Thr	Val	Val	Tyr	290	295	300
Phe	Gly	Lys	Glu	Glu	Ile	Asn	Glu	Val	Lys	Gly	Ile	Leu	Glu	Asn	305	310	315
Thr	Ser	Lys	Ala	Ala	Asn	Phe	Arg	Asn	Phe	Thr	Phe	Ile	Gln	Leu	320	325	330
Asn	Gly	Glu	Phe	Ser	Arg	Gly	Lys	Gly	Leu	Asp	Val	Gly	Ala	Arg	335	340	345
Phe	Trp	Lys	Gly	Ser	Asn	Val	Leu	Leu	Phe	Phe	Cys	Asp	Val	Asp	350	355	360
Ile	Tyr	Phe	Thr	Ser	Glu	Phe	Leu	Asn	Thr	Cys	Arg	Leu	Asn	Thr	365	370	375

Gln	Pro	Gly	Lys	Lys	Val	Phe	Tyr	Pro	Val	Leu	Phe	Ser	Gln	Tyr	
				380					385					390	
Asn	Pro	Gly	Ile	Ile	Tyr	Gly	His	His	Asp	Ala	Val	Pro	Pro	Leu	
				395					400					405	
Glu	Gln	Gln	Leu	Val	Ile	Lys	Lys	Glu	Thr	Gly	Phe	Trp	Arg	Asp	
				410					415					420	
Phe	Gly	Phe	Gly	Met	Thr	Cys	Gln	Tyr	Arg	Ser	Asp	Phe	Ile	Asn	
				425					430					435	
Ile	Gly	Gly	Phe	Asp	Leu	Asp	Ile	Lys	Gly	Trp	Gly	Gly	Glu	Asp	
				440					445					450	
Val	His	Leu	Tyr	Arg	Lys	Tyr	Leu	His	Ser	Asn	Leu	Ile	Val	Val	
				455					460					465	
Arg	Thr	Pro	Val	Arg	Gly	Leu	Phe	His	Leu	Trp	His	Glu	Lys	Arg	
				470					475					480	
Cys	Met	Asp	Glu	Leu	Thr	Pro	Glu	Gln	Tyr	Lys	Met	Cys	Met	Gln	
				485					490					495	
Ser	Lys	Ala	Met	Asn	Glu	Ala	Ser	His	Gly	Gln	Leu	Gly	Met	Leu	
				500					505					510	
Val	Phe	Arg	His	Glu	Ile	Glu	Ala	His	Leu	Arg	Lys	Gln	Lys	Gln	
				515					520					525	
Lys	Thr	Ser	Ser	Lys	Lys	Thr									
				530											

<210> 73
 <211> 1701
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 1528
 <223> unknown base

<400> 73
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 cacgccagga gctcgtctgc tctctctctc tctctctcac tcctccctcc 200
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 gcacccttc ctgggacact atgttggttct ccgccctcct gctggaggtg 300
 atttggatec tggtgcaga tgggggtcaa cactggacgt atgagggccc 350
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 ccagtcgcc catcgatatt cagacagaca gtgtgacatt tgaccctgat 450
 ttgcctgctc tgcagcccca cggatatgac cagcctggca ccgagccttt 500

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 tgtatctggg tggacttccc cgaaaatatg tagctgccc gctccacctg 600
 cactgggggtc agaaaggatc cccagggggg tcagaacacc agatcaacag 650
 tgaagccaca tttgcagagc tccacattgt acattatgac tctgattcct 700
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 tctgagtcac ttgcatgaag tcaggcataa agatcagaag acctcagtgc 850
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 ttcaggggac attgttctcc acagaagagg agccctctaa gcttctggta 1050
 cagaactacc gagcccttca gcctctcaat cagcgcattg tctttgcttc 1100
 tttcatccaa gcaggatcct cgtataccac aggtgaaatg ctgagtctag 1150
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 attgctagaa agattcggaa gaagaggctg gaaaaccgaa agagtgtggt 1250
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 catggatgtg gatgacttcc cttcatgcct atcaggaagc ctctaaaatg 1350
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 ccttccccctg gacatctctt agagaggaat ggaccaggc tgtcattcca 1450
 ggaagaactg cagagccttc agcctctcca aacatgtagg aggaaatgag 1500
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 gaagtgtgat atttttgatc aatatatttg gaaattaaag tttctgactt 1700
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<210> 74

<211> 337

<212> PRT

<213> Homo Sapien

<400> 74

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Ala	Asp	Gly	Gly	Gln	His	Trp	Thr	Tyr	Glu	Gly	Pro	His	Gly	Gln
				20					25				30	

Asp His Trp Pro Ala Ser Tyr Pro Glu Cys Gly Asn Asn Ala Gln

35					40					45				
Ser	Pro	Ile	Asp	Ile	Gln	Thr	Asp	Ser	Val	Thr	Phe	Asp	Pro	Asp
				50					55					60
Leu	Pro	Ala	Leu	Gln	Pro	His	Gly	Tyr	Asp	Gln	Pro	Gly	Thr	Glu
				65					70					75
Pro	Leu	Asp	Leu	His	Asn	Asn	Gly	His	Thr	Val	Gln	Leu	Ser	Leu
				80					85					90
Pro	Ser	Thr	Leu	Tyr	Leu	Gly	Gly	Leu	Pro	Arg	Lys	Tyr	Val	Ala
				95					100					105
Ala	Gln	Leu	His	Leu	His	Trp	Gly	Gln	Lys	Gly	Ser	Pro	Gly	Gly
				110					115					120
Ser	Glu	His	Gln	Ile	Asn	Ser	Glu	Ala	Thr	Phe	Ala	Glu	Leu	His
				125					130					135
Ile	Val	His	Tyr	Asp	Ser	Asp	Ser	Tyr	Asp	Ser	Leu	Ser	Glu	Ala
				140					145					150
Ala	Glu	Arg	Pro	Gln	Gly	Leu	Ala	Val	Leu	Gly	Ile	Leu	Ile	Glu
				155					160					165
Val	Gly	Glu	Thr	Lys	Asn	Ile	Ala	Tyr	Glu	His	Ile	Leu	Ser	His
				170					175					180
Leu	His	Glu	Val	Arg	His	Lys	Asp	Gln	Lys	Thr	Ser	Val	Pro	Pro
				185					190					195
Phe	Asn	Leu	Arg	Glu	Leu	Leu	Pro	Lys	Gln	Leu	Gly	Gln	Tyr	Phe
				200					205					210
Arg	Tyr	Asn	Gly	Ser	Leu	Thr	Thr	Pro	Pro	Cys	Tyr	Gln	Ser	Val
				215					220					225
Leu	Trp	Thr	Val	Phe	Tyr	Arg	Arg	Ser	Gln	Ile	Ser	Met	Glu	Gln
				230					235					240
Leu	Glu	Lys	Leu	Gln	Gly	Thr	Leu	Phe	Ser	Thr	Glu	Glu	Glu	Pro
				245					250					255
Ser	Lys	Leu	Leu	Val	Gln	Asn	Tyr	Arg	Ala	Leu	Gln	Pro	Leu	Asn
				260					265					270
Gln	Arg	Met	Val	Phe	Ala	Ser	Phe	Ile	Gln	Ala	Gly	Ser	Ser	Tyr
				275					280					285
Thr	Thr	Gly	Glu	Met	Leu	Ser	Leu	Gly	Val	Gly	Ile	Leu	Val	Gly
				290					295					300
Cys	Leu	Cys	Leu	Leu	Leu	Ala	Val	Tyr	Phe	Ile	Ala	Arg	Lys	Ile
				305					310					315
Arg	Lys	Lys	Arg	Leu	Glu	Asn	Arg	Lys	Ser	Val	Val	Phe	Thr	Ser
				320					325					330
Ala	Gln	Ala	Thr	Thr	Glu	Ala								
				335										

<210> 75

<211> 1743
<212> DNA
<213> Homo Sapien

<400> 75
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cttatccatc aacatgaaga atgtcctaca atggactcca ccagaggggtc 150
ttcaaggagt taaagttact tacactgtgc agtatttcat cacaaattgg 200
cccaccagag gtggcactga ctacagatga gaagtccatt tctgttgctc 250
tgacagctcc agagaagtgg aagagaaatc cagaagacct tcctgtttcc 300
atgcaacaaa tatactccaa tctgaagtat aacgtgtctg tgttgaatac 350
taaatacaaac agaacgtggg cccagtgtgt gaccaaccac acgctgggtc 400
tcacctggct ggagccgaac actctttact gcgtacacgt ggagtccttc 450
gtcccagggc cccctcgccg tgctcagcct tctgagaagc agtgtgccag 500
gactttgaaa gatcaatcat cagagttcaa ggctaaaatc atcttctggg 550
atgttttgcc catatctatt accgtgtttc ttttttctgt gatgggctat 600
tccatctacc gatatatcca cgttggcaaa gagaaacacc cagcaaattt 650
gattttgatt tatggaaatg aatttgacaa aagattcttt gtgcctgctg 700
aaaaaatcgt gattaacttt atcacccctc atatctcgga tgattctaaa 750
atttctcatc aggatatgag ttactggga aaaagcagtg atgtatccag 800
ccttaatgat cctcagccca gcgggaacct gaggccccct caggaggaag 850
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tcagaaccac tgacatttgt gcggggcctg aagagcagga gctcagtttg 1050
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gaggaagagc catcgacgac cctggtcgac tgggatcccc aaactggcag 1250
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 cctttgatcc cagccataaa gtacctggga tgaaagaagt tttttccagt 1550
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 cgtgtgtgat tggttcatgc atgtaggctt cttaacaatg atggtggggc 1650
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 aaatgtttgc cagactgggt gcagaattta ttcaggtggg tgt 1743

<210> 76
 <211> 442
 <212> PRT
 <213> Homo Sapien

<400> 76
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 20 25 30
 Val Ala Leu Thr Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr
 35 40 45
 Ala Pro Glu Lys Trp Lys Arg Asn Pro Glu Asp Leu Pro Val Ser
 50 55 60
 Met Gln Gln Ile Tyr Ser Asn Leu Lys Tyr Asn Val Ser Val Leu
 65 70 75
 Asn Thr Lys Ser Asn Arg Thr Trp Ser Gln Cys Val Thr Asn His
 80 85 90
 Thr Leu Val Leu Thr Trp Leu Glu Pro Asn Thr Leu Tyr Cys Val
 95 100 105
 His Val Glu Ser Phe Val Pro Gly Pro Pro Arg Arg Ala Gln Pro
 110 115 120
 Ser Glu Lys Gln Cys Ala Arg Thr Leu Lys Asp Gln Ser Ser Glu
 125 130 135
 Phe Lys Ala Lys Ile Ile Phe Trp Tyr Val Leu Pro Ile Ser Ile
 140 145 150
 Thr Val Phe Leu Phe Ser Val Met Gly Tyr Ser Ile Tyr Arg Tyr
 155 160 165
 Ile His Val Gly Lys Glu Lys His Pro Ala Asn Leu Ile Leu Ile
 170 175 180
 Tyr Gly Asn Glu Phe Asp Lys Arg Phe Phe Val Pro Ala Glu Lys
 185 190 195
 Ile Val Ile Asn Phe Ile Thr Leu Asn Ile Ser Asp Asp Ser Lys
 200 205 210
 Ile Ser His Gln Asp Met Ser Leu Leu Gly Lys Ser Ser Asp Val
 215 220 225

Ser	Ser	Leu	Asn	Asp	Pro	Gln	Pro	Ser	Gly	Asn	Leu	Arg	Pro	Pro	
				230					235					240	
Gln	Glu	Glu	Glu	Glu	Val	Lys	His	Leu	Gly	Tyr	Ala	Ser	His	Leu	
				245					250					255	
Met	Glu	Ile	Phe	Cys	Asp	Ser	Glu	Glu	Asn	Thr	Glu	Gly	Thr	Ser	
				260					265					270	
Leu	Thr	Gln	Gln	Glu	Ser	Leu	Ser	Arg	Thr	Ile	Pro	Pro	Asp	Lys	
				275					280					285	
Thr	Val	Ile	Glu	Tyr	Glu	Tyr	Asp	Val	Arg	Thr	Thr	Asp	Ile	Cys	
				290					295					300	
Ala	Gly	Pro	Glu	Glu	Gln	Glu	Leu	Ser	Leu	Gln	Glu	Glu	Val	Ser	
				305					310					315	
Thr	Gln	Gly	Thr	Leu	Leu	Glu	Ser	Gln	Ala	Ala	Leu	Ala	Val	Leu	
				320					325					330	
Gly	Pro	Gln	Thr	Leu	Gln	Tyr	Ser	Tyr	Thr	Pro	Gln	Leu	Gln	Asp	
				335					340					345	
Leu	Asp	Pro	Leu	Ala	Gln	Glu	His	Thr	Asp	Ser	Glu	Glu	Gly	Pro	
				350					355					360	
Glu	Glu	Glu	Pro	Ser	Thr	Thr	Leu	Val	Asp	Trp	Asp	Pro	Gln	Thr	
				365					370					375	
Gly	Arg	Leu	Cys	Ile	Pro	Ser	Leu	Ser	Ser	Phe	Asp	Gln	Asp	Ser	
				380					385					390	
Glu	Gly	Cys	Glu	Pro	Ser	Glu	Gly	Asp	Gly	Leu	Gly	Glu	Glu	Gly	
				395					400					405	
Leu	Leu	Ser	Arg	Leu	Tyr	Glu	Glu	Pro	Ala	Pro	Asp	Arg	Pro	Pro	
				410					415					420	
Gly	Glu	Asn	Glu	Thr	Tyr	Leu	Met	Gln	Phe	Met	Glu	Glu	Trp	Gly	
				425					430					435	
Leu	Tyr	Val	Gln	Met	Glu	Asn									
				440											

<210> 77
 <211> 1636
 <212> DNA
 <213> Homo Sapien

<400> 77
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 tgcagttctc atcctcggcc caaaagtcac caaagaaaag ctgacacagg 200
 agctgaagga ccacaacgcc accagcatcc tgcagcagct gccgctgctc 250
 agtgccatgc gggaaaagcc agccggaggc atccctgtgc tgggcagcct 300

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ggatgaacacc gtcctgaagc acatcatctg gctgaaggtc atcacagcta 350
acatcctcca gctgcagggtg aagccctcgg ccaatgacca ggagctgcta 400
gtcaagatcc ccctggacat ggtggctgga ttcaacacgc ccctgggtcaa 450
gaccatcgtg gagttccaca tgacgactga ggcccaagcc accatccgca 500
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gaaaccagc tctcctgtct cccagtgaag acttggatgg cagccatcag 1550
ggaaggctgg gtcccagctg ggagtatggg tgtgagctct atagaccatc 1600
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<210> 78

<211> 484

<212> PRT

<213> Homo Sapien

<400> 78

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Ala Thr Leu Ile	Gln	Ala Thr Leu Ser	Pro	Thr Ala Val Leu	Ile
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Leu Gly Pro Lys	Val	Ile Lys Glu Lys	Leu	Thr Gln Glu Leu	Lys
35			40		45
Asp His Asn Ala	Thr	Ser Ile Leu Gln	Gln	Leu Pro Leu Leu	Ser
50			55		60
Ala Met Arg Glu	Lys	Pro Ala Gly Gly	Ile	Pro Val Leu Gly	Ser
65			70		75
Leu Val Asn Thr	Val	Leu Lys His Ile	Ile	Trp Leu Lys Val	Ile
80			85		90
Thr Ala Asn Ile	Leu	Gln Leu Gln Val	Lys	Pro Ser Ala Asn	Asp
95			100		105
Gln Glu Leu Leu	Val	Lys Ile Pro Leu	Asp	Met Val Ala Gly	Phe
110			115		120
Asn Thr Pro Leu	Val	Lys Thr Ile Val	Glu	Phe His Met Thr	Thr
125			130		135
Glu Ala Gln Ala	Thr	Ile Arg Met Asp	Thr	Ser Ala Ser Gly	Pro
140			145		150
Thr Arg Leu Val	Leu	Ser Asp Cys Ala	Thr	Ser His Gly Ser	Leu
155			160		165
Arg Ile Gln Leu	Leu	Tyr Lys Leu Ser	Phe	Leu Val Asn Ala	Leu
170			175		180
Ala Lys Gln Val	Met	Asn Leu Leu Val	Pro	Ser Leu Pro Asn	Leu
185			190		195
Val Lys Asn Gln	Leu	Cys Pro Val Ile	Glu	Ala Ser Phe Asn	Gly
200			205		210
Met Tyr Ala Asp	Leu	Leu Gln Leu Val	Lys	Val Pro Ile Ser	Leu
215			220		225
Ser Ile Asp Arg	Leu	Glu Phe Asp Leu	Leu	Tyr Pro Ala Ile	Lys
230			235		240
Gly Asp Thr Ile	Gln	Leu Tyr Leu Gly	Ala	Lys Leu Leu Asp	Ser
245			250		255
Gln Gly Lys Val	Thr	Lys Trp Phe Asn	Asn	Ser Ala Ala Ser	Leu
260			265		270
Thr Met Pro Thr	Leu	Asp Asn Ile Pro	Phe	Ser Leu Ile Val	Ser
275			280		285
Gln Asp Val Val	Lys	Ala Ala Val Ala	Ala	Val Leu Ser Pro	Glu
290			295		300
Glu Phe Met Val	Leu	Leu Asp Ser Val	Leu	Pro Glu Ser Ala	His
305			310		315
Arg Leu Lys Ser	Ser	Ile Gly Leu Ile	Asn	Glu Lys Ala Ala	Asp
320			325		330

Lys	Leu	Gly	Ser	Thr	Gln	Ile	Val	Lys	Ile	Leu	Thr	Gln	Asp	Thr	
				335					340					345	
Pro	Glu	Phe	Phe	Ile	Asp	Gln	Gly	His	Ala	Lys	Val	Ala	Gln	Leu	
				350					355					360	
Ile	Val	Leu	Glu	Val	Phe	Pro	Ser	Ser	Glu	Ala	Leu	Arg	Pro	Leu	
				365					370					375	
Phe	Thr	Leu	Gly	Ile	Glu	Ala	Ser	Ser	Glu	Ala	Gln	Phe	Tyr	Thr	
				380					385					390	
Lys	Gly	Asp	Gln	Leu	Ile	Leu	Asn	Leu	Asn	Asn	Ile	Ser	Ser	Asp	
				395					400					405	
Arg	Ile	Gln	Leu	Met	Asn	Ser	Gly	Ile	Gly	Trp	Phe	Gln	Pro	Asp	
				410					415					420	
Val	Leu	Lys	Asn	Ile	Ile	Thr	Glu	Ile	Ile	His	Ser	Ile	Leu	Leu	
				425					430					435	
Pro	Asn	Gln	Asn	Gly	Lys	Leu	Arg	Ser	Gly	Val	Pro	Val	Ser	Leu	
				440					445					450	
Val	Lys	Ala	Leu	Gly	Phe	Glu	Ala	Ala	Glu	Ser	Ser	Leu	Thr	Lys	
				455					460					465	
Asp	Ala	Leu	Val	Leu	Thr	Pro	Ala	Ser	Leu	Trp	Lys	Pro	Ser	Ser	
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Pro Val Ser Gln

<210> 79
 <211> 1475
 <212> DNA
 <213> Homo Sapien

<400> 79
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 ctacatccta ggccttcttg ggcttttggg cacactgggt gccatgctgc 200
 tccccagctg gaaaacaagt tcttatgtcg gtgccagcat tgtgacagca 250
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 ttggaggcct cctgggatcc attcctgttg cctggaatct tcatgggatc 550
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 tactacgatg cctaccaagc ccaacctctt gccacaagga gctctccaag 750
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 cagggatatgt gtgaagaacc aggggccaga gctgggggggt ggctgggtct 850
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 cctccaaaga aactgattgg ccctggaacc tccatccac tcttgttatg 1350
 actccacagt gtccagacta atttgtgcat gaactgaaat aaaaccatcc 1400
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 gcagcctggg acatttaaaa aaata 1475

<210> 80
 <211> 230
 <212> PRT
 <213> Homo Sapien

<400> 80
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 35 40 45
 Phe Ser Lys Gly Leu Trp Met Glu Cys Ala Thr His Ser Thr Gly
 50 55 60
 Ile Thr Gln Cys Asp Ile Tyr Ser Thr Leu Leu Gly Leu Pro Ala
 65 70 75
 Asp Ile Gln Ala Ala Gln Ala Met Met Val Thr Ser Ser Ala Ile
 80 85 90
 Ser Ser Leu Ala Cys Ile Ile Ser Val Val Gly Met Arg Cys Thr
 95 100 105

Val	Phe	Cys	Gln	Glu	Ser	Arg	Ala	Lys	Asp	Arg	Val	Ala	Val	Ala	
				110					115					120	
Gly	Gly	Val	Phe	Phe	Ile	Leu	Gly	Gly	Leu	Leu	Gly	Phe	Ile	Pro	
				125					130					135	
Val	Ala	Trp	Asn	Leu	His	Gly	Ile	Leu	Arg	Asp	Phe	Tyr	Ser	Pro	
				140					145					150	
Leu	Val	Pro	Asp	Ser	Met	Lys	Phe	Glu	Ile	Gly	Glu	Ala	Leu	Tyr	
				155					160					165	
Leu	Gly	Ile	Ile	Ser	Ser	Leu	Phe	Ser	Leu	Ile	Ala	Gly	Ile	Ile	
				170					175					180	
Leu	Cys	Phe	Ser	Cys	Ser	Ser	Gln	Arg	Asn	Arg	Ser	Asn	Tyr	Tyr	
				185					190					195	
Asp	Ala	Tyr	Gln	Ala	Gln	Pro	Leu	Ala	Thr	Arg	Ser	Ser	Pro	Arg	
				200					205					210	
Pro	Gly	Gln	Pro	Pro	Lys	Val	Lys	Ser	Glu	Phe	Asn	Ser	Tyr	Ser	
				215					220					225	
Leu	Thr	Gly	Tyr	Val											
				230											

<210> 81
 <211> 1732
 <212> DNA
 <213> Homo Sapien

<400> 81
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 tctgtggccc ctgtgcctcc gtgtcctttt cgtctccctt cctcccgact 250
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 gtcctctgca gctgcacaga gggccagatc tactgcggcc tcacaacctg 750

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cagtcgctcc atgggggtgag acatcctcag gatccatggt ccagtgatgc 900
tgggagaaaag agaggccccg gcaccccagc cccactggc ctcagcgccc 950
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aagacttcca gaaagaggca cagcacttcc gactgctcgc tggccccccac 1550
gaaggtcact ggaacgtctt cctagcccag accctggagc tgaaggtcac 1600
ggccagtcca gacaaagtga ccaagacata acaaagacct aacagttgca 1650
gatatgagct gtataattgt tggtattata tattaataaa taagaagttg 1700
cattaccctc aaaaaaaaaa aaaaaaaaaa aa 1732

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<210> 82
<211> 451
<212> PRT
<213> Homo Sapien

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<400> 82
Met Val Pro Glu Val Arg Val Leu Ser Ser Leu Leu Gly Leu Ala
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Leu Leu Trp Phe Pro Leu Asp Ser His Ala Arg Ala Arg Pro Asp
          20          25          30

Met Phe Cys Leu Phe His Gly Lys Arg Tyr Ser Pro Gly Glu Ser
          35          40          45

Trp His Pro Tyr Leu Glu Pro Gln Gly Leu Met Tyr Cys Leu Arg
          50          55          60

Cys Thr Cys Ser Glu Gly Ala His Val Ser Cys Tyr Arg Leu His
          65          70          75

Cys Pro Pro Val His Cys Pro Gln Pro Val Thr Glu Pro Gln Gln
          80          85          90

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Cys	Cys	Pro	Lys	Cys	Val	Glu	Pro	His	Thr	Pro	Ser	Gly	Leu	Arg		95	100	105
Ala	Pro	Pro	Lys	Ser	Cys	Gln	His	Asn	Gly	Thr	Met	Tyr	Gln	His		110	115	120
Gly	Glu	Ile	Phe	Ser	Ala	His	Glu	Leu	Phe	Pro	Ser	Arg	Leu	Pro		125	130	135
Asn	Gln	Cys	Val	Leu	Cys	Ser	Cys	Thr	Glu	Gly	Gln	Ile	Tyr	Cys		140	145	150
Gly	Leu	Thr	Thr	Cys	Pro	Glu	Pro	Gly	Cys	Pro	Ala	Pro	Leu	Pro		155	160	165
Leu	Pro	Asp	Ser	Cys	Cys	Gln	Ala	Cys	Lys	Asp	Glu	Ala	Ser	Glu		170	175	180
Gln	Ser	Asp	Glu	Glu	Asp	Ser	Val	Gln	Ser	Leu	His	Gly	Val	Arg		185	190	195
His	Pro	Gln	Asp	Pro	Cys	Ser	Ser	Asp	Ala	Gly	Arg	Lys	Arg	Gly		200	205	210
Pro	Gly	Thr	Pro	Ala	Pro	Thr	Gly	Leu	Ser	Ala	Pro	Leu	Ser	Phe		215	220	225
Ile	Pro	Arg	His	Phe	Arg	Pro	Lys	Gly	Ala	Gly	Ser	Thr	Thr	Val		230	235	240
Lys	Ile	Val	Leu	Lys	Glu	Lys	His	Lys	Lys	Ala	Cys	Val	His	Gly		245	250	255
Gly	Lys	Thr	Tyr	Ser	His	Gly	Glu	Val	Trp	His	Pro	Ala	Phe	Arg		260	265	270
Ala	Phe	Gly	Pro	Leu	Pro	Cys	Ile	Leu	Cys	Thr	Cys	Glu	Asp	Gly		275	280	285
Arg	Gln	Asp	Cys	Gln	Arg	Val	Thr	Cys	Pro	Thr	Glu	Tyr	Pro	Cys		290	295	300
Arg	His	Pro	Glu	Lys	Val	Ala	Gly	Lys	Cys	Cys	Lys	Ile	Cys	Pro		305	310	315
Glu	Asp	Lys	Ala	Asp	Pro	Gly	His	Ser	Glu	Ile	Ser	Ser	Thr	Arg		320	325	330
Cys	Pro	Lys	Ala	Pro	Gly	Arg	Val	Leu	Val	His	Thr	Ser	Val	Ser		335	340	345
Pro	Ser	Pro	Asp	Asn	Leu	Arg	Arg	Phe	Ala	Leu	Glu	His	Glu	Ala		350	355	360
Ser	Asp	Leu	Val	Glu	Ile	Tyr	Leu	Trp	Lys	Leu	Val	Lys	Asp	Glu		365	370	375
Glu	Thr	Glu	Ala	Gln	Arg	Gly	Glu	Val	Pro	Gly	Pro	Arg	Pro	His		380	385	390
Ser	Gln	Asn	Leu	Pro	Leu	Asp	Ser	Asp	Gln	Glu	Ser	Gln	Glu	Ala		395	400	405

Arg	Leu	Pro	Glu	Arg	Gly	Thr	Ala	Leu	Pro	Thr	Ala	Arg	Trp	Pro
				410					415					420
Pro	Arg	Arg	Ser	Leu	Glu	Arg	Leu	Pro	Ser	Pro	Asp	Pro	Gly	Ala
				425					430					435
Glu	Gly	His	Gly	Gln	Ser	Arg	Gln	Ser	Asp	Gln	Asp	Ile	Thr	Lys
				440					445					450

Thr

<210> 83
 <211> 2052
 <212> DNA
 <213> Homo Sapien

<400> 83
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 catgccgtga ggtccattca cagaacacat ccatggctct catgctcagt 200
 ttggttctga gtctcctcaa gctgggatca gggcagtggc aggtgtttgg 250
 gccagacaag cctgtccagg ccttggtggg ggaggacgca gcattctcct 300
 gtttcctgtc tccaaagacc aatgcagagg ccatggaagt gcgggttcttc 350
 aggggccagt tctctagcgt ggtccacctc tacagggacg ggaaggacca 400
 gccatttatg cagatgccac agtatcaagg caggacaaaa ctggtgaagg 450
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 aggagatacc tttttcgagc ctatatctgt gcacctggct accaaagtac 900
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 acagagtgta tcctaatggt ttgttcatta tattacactt tcagtaaaaa 2050
 aa 2052

<210> 84
 <211> 500
 <212> PRT
 <213> Homo Sapien

<400> 84
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 Ser Gly Gln Trp Gln Val Phe Gly Pro Asp Lys Pro Val Gln Ala
 20 25 30
 Leu Val Gly Glu Asp Ala Ala Phe Ser Cys Phe Leu Ser Pro Lys
 35 40 45
 Thr Asn Ala Glu Ala Met Glu Val Arg Phe Phe Arg Gly Gln Phe
 50 55 60
 Ser Ser Val Val His Leu Tyr Arg Asp Gly Lys Asp Gln Pro Phe
 65 70 75
 Met Gln Met Pro Gln Tyr Gln Gly Arg Thr Lys Leu Val Lys Asp
 80 85 90
 Ser Ile Ala Glu Gly Arg Ile Ser Leu Arg Leu Glu Asn Ile Thr

	95	100	105
Val Leu Asp Ala	Gly 110	Leu Tyr Gly Cys Arg 115	Ile Ser Ser Gln Ser 120
Tyr Tyr Gln Lys	Ala 125	Ile Trp Glu Leu Gln 130	Val Ser Ala Leu Gly 135
Ser Val Pro Leu	Ile 140	Ser Ile Thr Gly Tyr 145	Val Asp Arg Asp Ile 150
Gln Leu Leu Cys	Gln 155	Ser Ser Gly Trp Phe 160	Pro Arg Pro Thr Ala 165
Lys Trp Lys Gly	Pro 170	Gln Gly Gln Asp Leu 175	Ser Thr Asp Ser Arg 180
Thr Asn Arg Asp	Met 185	His Gly Leu Phe Asp 190	Val Glu Ile Ser Leu 195
Thr Val Gln Glu	Asn 200	Ala Gly Ser Ile Ser 205	Cys Ser Met Arg His 210
Ala His Leu Ser	Arg 215	Glu Val Glu Ser Arg 220	Val Gln Ile Gly Asp 225
Thr Phe Phe Glu	Pro 230	Ile Ser Trp His Leu 235	Ala Thr Lys Val Leu 240
Gly Ile Leu Cys	Cys 245	Gly Leu Phe Phe Gly 250	Ile Val Gly Leu Lys 255
Ile Phe Phe Ser	Lys 260	Phe Gln Trp Lys Ile 265	Gln Ala Glu Leu Asp 270
Trp Arg Arg Lys	His 275	Gly Gln Ala Glu Leu 280	Arg Asp Ala Arg Lys 285
His Ala Val Glu	Val 290	Thr Leu Asp Pro Glu 295	Thr Ala His Pro Lys 300
Leu Cys Val Ser	Asp 305	Leu Lys Thr Val Thr 310	His Arg Lys Ala Pro 315
Gln Glu Val Pro	His 320	Ser Glu Lys Arg Phe 325	Thr Arg Lys Ser Val 330
Val Ala Ser Gln	Ser 335	Phe Gln Ala Gly Lys 340	His Tyr Trp Glu Val 345
Asp Gly Gly His	Asn 350	Lys Arg Trp Arg Val 355	Gly Val Cys Arg Asp 360
Asp Val Asp Arg	Arg 365	Lys Glu Tyr Val Thr 370	Leu Ser Pro Asp His 375
Gly Tyr Trp Val	Leu 380	Arg Leu Asn Gly Glu 385	His Leu Tyr Phe Thr 390
Leu Asn Pro Arg	Phe 395	Ile Ser Val Phe Pro 400	Arg Thr Pro Pro Thr 405
Lys Ile Gly Val	Phe	Leu Asp Tyr Glu Cys Gly Thr Ile Ser Phe	

410	415	420
Phe Asn Ile Asn Asp Gln Ser Leu Ile	Tyr Thr Leu Thr Cys Arg	
425	430	435
Phe Glu Gly Leu Leu Arg Pro Tyr Ile	Glu Tyr Pro Ser Tyr Asn	
440	445	450
Glu Gln Asn Gly Thr Pro Ile Val Ile	Cys Pro Val Thr Gln Glu	
455	460	465
Ser Glu Lys Glu Ala Ser Trp Gln Arg	Ala Ser Ala Ile Pro Glu	
470	475	480
Thr Ser Asn Ser Glu Ser Ser Ser Gln	Ala Thr Thr Pro Phe Leu	
485	490	495
Pro Arg Gly Glu Met		
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<210> 85
 <211> 1665
 <212> DNA
 <213> Homo Sapien

<400> 85
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 gtccatgtgc cctgctcctt ctccatcccc tcgcatggct ggatttacct 200
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 acagacaaat tccta 1665

<210> 86
 <211> 463
 <212> PRT
 <213> Homo Sapien

<400> 86
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 Glu Gly Gln Thr Ser Lys Leu Leu Thr Met Gln Ser Ser Val Thr
 20 25 30
 Val Gln Glu Gly Leu Cys Val His Val Pro Cys Ser Phe Ser Tyr
 35 40 45
 Pro Ser His Gly Trp Ile Tyr Pro Gly Pro Val Val His Gly Tyr
 50 55 60
 Trp Phe Arg Glu Gly Ala Asn Thr Asp Gln Asp Ala Pro Val Ala
 65 70 75
 Thr Asn Asn Pro Ala Arg Ala Val Trp Glu Glu Thr Arg Asp Arg
 80 85 90
 Phe His Leu Leu Gly Asp Pro His Thr Lys Asn Cys Thr Leu Ser
 95 100 105
 Ile Arg Asp Ala Arg Arg Ser Asp Ala Gly Arg Tyr Phe Phe Arg
 110 115 120
 Met Glu Lys Gly Ser Ile Lys Trp Asn Tyr Lys His His Arg Leu
 125 130 135

Ser Val Asn Val	Thr Ala Leu Thr His Arg Pro Asn Ile Leu Ile	140	145	150
Pro Gly Thr Leu	Glu Ser Gly Cys Pro Gln Asn Leu Thr Cys Ser	155	160	165
Val Pro Trp Ala	Cys Glu Gln Gly Thr Pro Pro Met Ile Ser Trp	170	175	180
Ile Gly Thr Ser	Val Ser Pro Leu Asp Pro Ser Thr Thr Arg Ser	185	190	195
Ser Val Leu Thr	Leu Ile Pro Gln Pro Gln Asp His Gly Thr Ser	200	205	210
Leu Thr Cys Gln	Val Thr Phe Pro Gly Ala Ser Val Thr Thr Asn	215	220	225
Lys Thr Val His	Leu Asn Val Ser Tyr Pro Pro Gln Asn Leu Thr	230	235	240
Met Thr Val Phe	Gln Gly Asp Gly Thr Val Ser Thr Val Leu Gly	245	250	255
Asn Gly Ser Ser	Leu Ser Leu Pro Glu Gly Gln Ser Leu Arg Leu	260	265	270
Val Cys Ala Val	Asp Ala Val Asp Ser Asn Pro Pro Ala Arg Leu	275	280	285
Ser Leu Ser Trp	Arg Gly Leu Thr Leu Cys Pro Ser Gln Pro Ser	290	295	300
Asn Pro Gly Val	Leu Glu Leu Pro Trp Val His Leu Arg Asp Ala	305	310	315
Ala Glu Phe Thr	Cys Arg Ala Gln Asn Pro Leu Gly Ser Gln Gln	320	325	330
Val Tyr Leu Asn	Val Ser Leu Gln Ser Lys Ala Thr Ser Gly Val	335	340	345
Thr Gln Gly Val	Val Gly Gly Ala Gly Ala Thr Ala Leu Val Phe	350	355	360
Leu Ser Phe Cys	Val Ile Phe Val Val Val Arg Ser Cys Arg Lys	365	370	375
Lys Ser Ala Arg	Pro Ala Ala Gly Val Gly Asp Thr Gly Ile Glu	380	385	390
Asp Ala Asn Ala	Val Arg Gly Ser Ala Ser Gln Gly Pro Leu Thr	395	400	405
Glu Pro Trp Ala	Glu Asp Ser Pro Pro Asp Gln Pro Pro Pro Ala	410	415	420
Ser Ala Arg Ser	Ser Val Gly Glu Gly Glu Leu Gln Tyr Ala Ser	425	430	435
Leu Ser Phe Gln	Met Val Lys Pro Trp Asp Ser Arg Gly Gln Glu	440	445	450

Ala Thr Asp Thr Glu Tyr Ser Glu Ile Lys Ile His Arg
 455 460

<210> 87
 <211> 1176
 <212> DNA
 <213> Homo Sapien

<400> 87
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 aggagctctc tgtacccaag gaaagtgcag ctgagactca gacaagatta 100
 caatgaacca actcagcttc ctgctgtttc tcatagcgac caccagagga 150
 tggagtacag atgaggctaa tacttacttc aaggaatgga cctgttcttc 200
 gtctccatct ctgcccagaa gctgcaagga aatcaaagac gaatgtccta 250
 gtgcatttga tggcctgtat tttctccgca ctgagaatgg tgttatctac 300
 cagaccttct gtgacatgac ctctgggggt ggcggctgga ccctggtggc 350
 cagcgtgcat gagaatgaca tgcgtgggaa gtgcacggtg ggcgatcgct 400
 ggtccagtca gcagggcagc aaagcagact acccagaggg ggacggcaac 450
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 ctacaagaac cctggctact acgacatcca ggccaaggac ctgggcatct 550
 ggcacgtgcc caataagtcc cccatgcagc actggagaaa cagctccctg 600
 ctgaggtacc gcacggacac tggcttctc cagacactgg gacataatct 650
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 tgtgtgctgg aatgagggtc accggatgta aactgagca tctactgcatt 900
 ggtggaggag gatactttcc agaggccagt cccagcagt gtggagattt 950
 ttctggtttt gattggagtg gatatggaac tcatgttggt tacagcagca 1000
 gccgtgagat aactgaggca gctgtgcttc tattctatcg ttgagagttt 1050
 tgtgggaggg aaccagacc tctctccca accatgagat cccaaggatg 1100
 gagaacaact taccagtag ctagaatgtt aatggcagaa gagaaaacaa 1150
 taaatcatat tgactcaaga aaaaaa 1176

<210> 88
 <211> 313
 <212> PRT
 <213> Homo Sapien

<400> 88

Met	Asn	Gln	Leu	Ser	Phe	Leu	Leu	Phe	Leu	Ile	Ala	Thr	Thr	Arg	1	5	10	15
Gly	Trp	Ser	Thr	Asp	Glu	Ala	Asn	Thr	Tyr	Phe	Lys	Glu	Trp	Thr	20	25	30	
Cys	Ser	Ser	Ser	Pro	Ser	Leu	Pro	Arg	Ser	Cys	Lys	Glu	Ile	Lys	35	40	45	
Asp	Glu	Cys	Pro	Ser	Ala	Phe	Asp	Gly	Leu	Tyr	Phe	Leu	Arg	Thr	50	55	60	
Glu	Asn	Gly	Val	Ile	Tyr	Gln	Thr	Phe	Cys	Asp	Met	Thr	Ser	Gly	65	70	75	
Gly	Gly	Gly	Trp	Thr	Leu	Val	Ala	Ser	Val	His	Glu	Asn	Asp	Met	80	85	90	
Arg	Gly	Lys	Cys	Thr	Val	Gly	Asp	Arg	Trp	Ser	Ser	Gln	Gln	Gly	95	100	105	
Ser	Lys	Ala	Asp	Tyr	Pro	Glu	Gly	Asp	Gly	Asn	Trp	Ala	Asn	Tyr	110	115	120	
Asn	Thr	Phe	Gly	Ser	Ala	Glu	Ala	Ala	Thr	Ser	Asp	Asp	Tyr	Lys	125	130	135	
Asn	Pro	Gly	Tyr	Tyr	Asp	Ile	Gln	Ala	Lys	Asp	Leu	Gly	Ile	Trp	140	145	150	
His	Val	Pro	Asn	Lys	Ser	Pro	Met	Gln	His	Trp	Arg	Asn	Ser	Ser	155	160	165	
Leu	Leu	Arg	Tyr	Arg	Thr	Asp	Thr	Gly	Phe	Leu	Gln	Thr	Leu	Gly	170	175	180	
His	Asn	Leu	Phe	Gly	Ile	Tyr	Gln	Lys	Tyr	Pro	Val	Lys	Tyr	Gly	185	190	195	
Glu	Gly	Lys	Cys	Trp	Thr	Asp	Asn	Gly	Pro	Val	Ile	Pro	Val	Val	200	205	210	
Tyr	Asp	Phe	Gly	Asp	Ala	Gln	Lys	Thr	Ala	Ser	Tyr	Tyr	Ser	Pro	215	220	225	
Tyr	Gly	Gln	Arg	Glu	Phe	Thr	Ala	Gly	Phe	Val	Gln	Phe	Arg	Val	230	235	240	
Phe	Asn	Asn	Glu	Arg	Ala	Ala	Asn	Ala	Leu	Cys	Ala	Gly	Met	Arg	245	250	255	
Val	Thr	Gly	Cys	Asn	Thr	Glu	His	His	Cys	Ile	Gly	Gly	Gly	Gly	260	265	270	
Tyr	Phe	Pro	Glu	Ala	Ser	Pro	Gln	Gln	Cys	Gly	Asp	Phe	Ser	Gly	275	280	285	
Phe	Asp	Trp	Ser	Gly	Tyr	Gly	Thr	His	Val	Gly	Tyr	Ser	Ser	Ser	290	295	300	
Arg	Glu	Ile	Thr	Glu	Ala	Ala	Val	Leu	Leu	Phe	Tyr	Arg	305	310				

<210> 89
 <211> 759
 <212> DNA
 <213> Homo Sapien

<400> 89
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 tcagggcttg tgccctctcg ctctctgacg ctctggcgcc atctgggtgg 150
 cgtcatcacc ttattctggt cccgggacag caacatacag gcctgcctgc 200
 ctctcacgtt ccccccgag gagtatgaca agcaggacat tcagctgggtg 250
 gccgcgctct ctgtcaccct gggcctcttt gcagtggagc tggccgggtt 300
 cctctcagga gtctccatgt tcaacagcac ccagagcctc atctccattg 350
 gggctcactg tagtgcaccc gtggccctgt ccttcttcat attcgagcgt 400
 tgggagtgcg ctacgtattg gtacattttt gtcttctgca gtgcccttcc 450
 agctgtcact gaaatggctt tattcgtcac cgtctttggg ctgaaaaaga 500
 aacccttctg attaccttca tgacgggaac ctaaggacga agcctacagg 550
 ggcaagggcc gcttcgtatt cctggaagaa ggaaggcata ggcttcgggt 600
 ttccccctcg aaactgcttc tgctggagga tatgtgttgg aataattacg 650
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 tgttttgtag taacattaag acttatatac agtttttaggg gacaattaa 750
 aaaaaaaaaa 759

<210> 90
 <211> 140
 <212> PRT
 <213> Homo Sapien

<400> 90
 Met Gly Arg Val Ser Gly Leu Val Pro Ser Arg Phe Leu Thr Leu 15
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 Leu Ala His Leu Val Val Val Ile Thr Leu Phe Trp Ser Arg Asp 30
 20 25 30
 Ser Asn Ile Gln Ala Cys Leu Pro Leu Thr Phe Thr Pro Glu Glu 45
 35 40 45
 Tyr Asp Lys Gln Asp Ile Gln Leu Val Ala Ala Leu Ser Val Thr 60
 50 55 60
 Leu Gly Leu Phe Ala Val Glu Leu Ala Gly Phe Leu Ser Gly Val 75
 65 70 75
 Ser Met Phe Asn Ser Thr Gln Ser Leu Ile Ser Ile Gly Ala His 90
 80 85 90
 Cys Ser Ala Ser Val Ala Leu Ser Phe Phe Ile Phe Glu Arg Trp

	95		100		105
Glu Cys Thr Thr Tyr Trp Tyr Ile Phe Val Phe Cys Ser Ala Leu					
	110		115		120
Pro Ala Val Thr Glu Met Ala Leu Phe Val Thr Val Phe Gly Leu					
	125		130		135
Lys Lys Lys Pro Phe					
	140				

<210> 91
 <211> 1871
 <212> DNA
 <213> Homo Sapien

<400> 91
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 gaagatgcaa ctgaactcgt gctgcttcgt gttcctggtg cagggttagcc 100
 tctatctggt catctgtggc caggatgatg gtccctcccg ctcagaggac 150
 cctgagcgtg atgaccacga gggccagccc cggccccggg tgcctcggaa 200
 gcggggccac atctcaccta agtcccggcc catggccaat tccactctcc 250
 tagggctgct ggccccgcct ggggaggctt ggggcattct tgggcagccc 300
 cccaaccgcc cgaaccacag cccccaccc tcagccaagg tgaagaaaat 350
 ctttggtcgt ggcgacttct actccaacat caagacggtg gccctgaacc 400
 tgctcgtcac agggaagatt gtggaccatg gcaatgggac cttcagcgtc 450
 cacttccaac acaatgccac aggccaggga aacatctcca tcagcctcgt 500
 gccccccagt aaagctgtag agttccacca ggaacagcag atcttcatcg 550
 aagccaaggc ctccaaaatc ttcaactgcc ggatggagtg ggagaaggta 600
 gaacggggcc gccggacctc gctttgcacc cacgaccag ccaagatctg 650
 ctcccagac cacgctcaga gctcagccac ctggagctgc tcccagccct 700
 tcaaagtcgt ctgtgtctac atcgcttct acagcacgga ctatcggtg 750
 gtccagaagg tgtgccaga ttacaactac catagtata cccctacta 800
 cccatctggg tgaccggggg caggccacag aggccaggcc agggctggaa 850
 ggacaggcct gcccatgcag gagaccatct ggacaccggg cagggaaggg 900
 gttgggcctc aggcaggag gggggtggag acgaggagat gccaagtggg 950
 gccagggccca agtctcaagt ggcagagaaa ggggtccaag tgctggtccc 1000
 aacctgaagc tgtggagtga ctagatcaca ggagcactgg aggaggagtg 1050
 ggctctctgt gcagcctcac agggctttgc cacggagcca cagagagatg 1100
 ctgggtcccc gaggcctgtg ggcaggccga tcagtgtggc cccagatcaa 1150

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gcaacagggga gggggagatt tcatcagtgt ggacagcctg tcaacttagg 1250
atggatggct gagagggctt cctaggagcc agtcagcagg gtgggggtggg 1300
gccagaggag ctctccagcc ctgcctagtg ggcgcctga gccccttgctc 1350
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ttccctcttc tgccagtact cccctgtac caccattgc tgatggcaca 1500
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aaccgctgat tgctgacttt tgtgtgaaga atcgtgttct tggagcagga 1850
aataaagctt gccccggggc a 1871

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<210> 92
<211> 252
<212> PRT
<213> Homo Sapien

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<400> 92
Met Gln Leu Thr Arg Cys Cys Phe Val Phe Leu Val Gln Gly Ser
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Leu Tyr Leu Val Ile Cys Gly Gln Asp Asp Gly Pro Pro Gly Ser
                20                      25                      30

Glu Asp Pro Glu Arg Asp Asp His Glu Gly Gln Pro Arg Pro Arg
                35                      40                      45

Val Pro Arg Lys Arg Gly His Ile Ser Pro Lys Ser Arg Pro Met
                50                      55                      60

Ala Asn Ser Thr Leu Leu Gly Leu Leu Ala Pro Pro Gly Glu Ala
                65                      70                      75

Trp Gly Ile Leu Gly Gln Pro Pro Asn Arg Pro Asn His Ser Pro
                80                      85                      90

Pro Pro Ser Ala Lys Val Lys Lys Ile Phe Gly Trp Gly Asp Phe
                95                      100                      105

Tyr Ser Asn Ile Lys Thr Val Ala Leu Asn Leu Leu Val Thr Gly
                110                      115                      120

Lys Ile Val Asp His Gly Asn Gly Thr Phe Ser Val His Phe Gln
                125                      130                      135

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His	Asn	Ala	Thr	Gly	Gln	Gly	Asn	Ile	Ser	Ile	Ser	Leu	Val	Pro	
				140					145					150	
Pro	Ser	Lys	Ala	Val	Glu	Phe	His	Gln	Glu	Gln	Gln	Ile	Phe	Ile	
				155					160					165	
Glu	Ala	Lys	Ala	Ser	Lys	Ile	Phe	Asn	Cys	Arg	Met	Glu	Trp	Glu	
				170					175					180	
Lys	Val	Glu	Arg	Gly	Arg	Arg	Thr	Ser	Leu	Cys	Thr	His	Asp	Pro	
				185					190					195	
Ala	Lys	Ile	Cys	Ser	Arg	Asp	His	Ala	Gln	Ser	Ser	Ala	Thr	Trp	
				200					205					210	
Ser	Cys	Ser	Gln	Pro	Phe	Lys	Val	Val	Cys	Val	Tyr	Ile	Ala	Phe	
				215					220					225	
Tyr	Ser	Thr	Asp	Tyr	Arg	Leu	Val	Gln	Lys	Val	Cys	Pro	Asp	Tyr	
				230					235					240	
Asn	Tyr	His	Ser	Asp	Thr	Pro	Tyr	Tyr	Pro	Ser	Gly				
				245					250						

<210> 93
 <211> 902
 <212> DNA
 <213> Homo Sapien

<400> 93
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 gggcctgcgc tcgcccttta tgtcttcacc atcgccatcg agccgttgcg 100
 tatcatcttc ctcatcgccg gagctttctt ctgggttggtg tctctactga 150
 tttcgtccct tgtttggttc atggcaagag tcattattga caacaaagat 200
 ggaccaacac agaaatatct gctgatcttt ggagcgtttg tctctgtcta 250
 tatccaagaa atgttccgat ttgcatatta taaactctta aaaaaagcca 300
 gtgaagggtt gaagagtata aaccaggtg agacagcacc ctctatgcca 350
 ctgctggcct atgtttcttg cttgggcttt ggaatcatga gtggagtatt 400
 ttcctttgtg aataccctat ctgactcctt ggggccaggc acagtgggca 450
 ttcattggaga ttctcctcaa ttcttccttt attcagcttt catgacgtg 500
 gtcattatct tgctgcatgt attctggggc attgtatatt ttgatggctg 550
 tgagaagaaa aagtggggca tcctccttat cgttctcctg acccacctgc 600
 tgggtgtcagc ccagaccttc ataagttctt attatggaat aaacctggcg 650
 tcagcattta taatcctggg gctcatgggc acctgggcat tcttagctgc 700
 gggaggcagc tgccgaagcc tgaaactctg cctgctctgc caagacaaga 750
 actttcttct ttacaaccag cgctccagat aacctcaggg aaccagcact 800
 tcccaaaccg cagactacat ctttagagga agcacaactg tgcctttttc 850

tgaaaatccc tttttctggt ggaattgaga aagaaataaa actatgcaga 900

ta 902

<210> 94

<211> 257

<212> PRT

<213> Homo Sapien

<400> 94

Met	Thr	Ala	Ala	Val	Phe	Phe	Gly	Cys	Ala	Phe	Ile	Ala	Phe	Gly	
1				5					10					15	
Pro	Ala	Leu	Ala	Leu	Tyr	Val	Phe	Thr	Ile	Ala	Ile	Glu	Pro	Leu	
				20					25					30	
Arg	Ile	Ile	Phe	Leu	Ile	Ala	Gly	Ala	Phe	Phe	Trp	Leu	Val	Ser	
				35					40					45	
Leu	Leu	Ile	Ser	Ser	Leu	Val	Trp	Phe	Met	Ala	Arg	Val	Ile	Ile	
				50					55					60	
Asp	Asn	Lys	Asp	Gly	Pro	Thr	Gln	Lys	Tyr	Leu	Leu	Ile	Phe	Gly	
				65					70					75	
Ala	Phe	Val	Ser	Val	Tyr	Ile	Gln	Glu	Met	Phe	Arg	Phe	Ala	Tyr	
				80					85					90	
Tyr	Lys	Leu	Leu	Lys	Lys	Ala	Ser	Glu	Gly	Leu	Lys	Ser	Ile	Asn	
				95					100					105	
Pro	Gly	Glu	Thr	Ala	Pro	Ser	Met	Arg	Leu	Leu	Ala	Tyr	Val	Ser	
				110					115					120	
Gly	Leu	Gly	Phe	Gly	Ile	Met	Ser	Gly	Val	Phe	Ser	Phe	Val	Asn	
				125					130					135	
Thr	Leu	Ser	Asp	Ser	Leu	Gly	Pro	Gly	Thr	Val	Gly	Ile	His	Gly	
				140					145					150	
Asp	Ser	Pro	Gln	Phe	Phe	Leu	Tyr	Ser	Ala	Phe	Met	Thr	Leu	Val	
				155					160					165	
Ile	Ile	Leu	Leu	His	Val	Phe	Trp	Gly	Ile	Val	Phe	Phe	Asp	Gly	
				170					175					180	
Cys	Glu	Lys	Lys	Lys	Trp	Gly	Ile	Leu	Leu	Ile	Val	Leu	Leu	Thr	
				185					190					195	
His	Leu	Leu	Val	Ser	Ala	Gln	Thr	Phe	Ile	Ser	Ser	Tyr	Tyr	Gly	
				200					205					210	
Ile	Asn	Leu	Ala	Ser	Ala	Phe	Ile	Ile	Leu	Val	Leu	Met	Gly	Thr	
				215					220					225	
Trp	Ala	Phe	Leu	Ala	Ala	Gly	Gly	Ser	Cys	Arg	Ser	Leu	Lys	Leu	
				230					235					240	
Cys	Leu	Leu	Cys	Gln	Asp	Lys	Asn	Phe	Leu	Leu	Tyr	Asn	Gln	Arg	
				245					250					255	

Ser Arg

<210> 95
 <211> 1073
 <212> DNA
 <213> Homo Sapien

<400> 95
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 gattctactg ttttgtcttc taggatcaac tcggtcatta ccacagctca 150
 aacctgcttt gggactccct cccacaaaac tggctccgga tcaggggaaca 200
 ctaccaaacc aacagcagtc aaatcaggtc tttccttctt taagtctgat 250
 accattaaca cagatgctca cactggggcc agatctgcat ctgttaaatac 300
 ctgctgcagg aatgacacct ggtaccaga cccaccatt gacctggga 350
 gggttgaatg tacaacagca actgcacca catgtgttac caatttttgt 400
 cacacaactt ggagcccagg gcactatcct aagctcagag gaattgccac 450
 aaatcttcac gagcctcatc atccattcct tgttcccggg aggcacctg 500
 cccaccagtc aggcaggggc taatccagat gtccaggatg gaagccttcc 550
 agcaggagga gcaggtgtaa atcctgccac ccaggggaacc ccagcaggcc 600
 gcctcccaac tcccagtggc acagatgacg actttgcagt gaccaccct 650
 gcaggcatcc aaaggagcac acatgccatc gaggaagcca ccacagaatac 700
 agcaaattgga attcagtaag ctgtttcaaa ttttttcaac taagctgcct 750
 cgaatttggg gatacatgtg aatctttatc attgattata ttatggaata 800
 gattgagaca cattggatag tcttagaaga aattaattct taatttacct 850
 gaaaatattc ttgaaatttc agaaaatatg ttctatgtag agaatcccaa 900
 ctttttaaaa caataattca atggataaat ctgtctttga aatataacat 950
 tatgctgcct ggatgatatg catattaaaa catatttgga aaactggaaa 1000
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1050
 aaaaaaaaaa aaaaaaaaaa aaa 1073

<210> 96
 <211> 209
 <212> PRT
 <213> Homo Sapien

<400> 96
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 Ser Leu Pro Gln Leu Lys Pro Ala Leu Gly Leu Pro Pro Thr Lys
 20 25 30
 Leu Ala Pro Asp Gln Gly Thr Leu Pro Asn Gln Gln Gln Ser Asn

35										40					45				
Gln	Val	Phe	Pro	Ser	Leu	Ser	Leu	Ile	Pro	Leu	Thr	Gln	Met	Leu					
				50					55					60					
Thr	Leu	Gly	Pro	Asp	Leu	His	Leu	Leu	Asn	Pro	Ala	Ala	Gly	Met					
				65					70					75					
Thr	Pro	Gly	Thr	Gln	Thr	His	Pro	Leu	Thr	Leu	Gly	Gly	Leu	Asn					
				80					85					90					
Val	Gln	Gln	Gln	Leu	His	Pro	His	Val	Leu	Pro	Ile	Phe	Val	Thr					
				95					100					105					
Gln	Leu	Gly	Ala	Gln	Gly	Thr	Ile	Leu	Ser	Ser	Glu	Glu	Leu	Pro					
				110					115					120					
Gln	Ile	Phe	Thr	Ser	Leu	Ile	Ile	His	Ser	Leu	Phe	Pro	Gly	Gly					
				125					130					135					
Ile	Leu	Pro	Thr	Ser	Gln	Ala	Gly	Ala	Asn	Pro	Asp	Val	Gln	Asp					
				140					145					150					
Gly	Ser	Leu	Pro	Ala	Gly	Gly	Ala	Gly	Val	Asn	Pro	Ala	Thr	Gln					
				155					160					165					
Gly	Thr	Pro	Ala	Gly	Arg	Leu	Pro	Thr	Pro	Ser	Gly	Thr	Asp	Asp					
				170					175					180					
Asp	Phe	Ala	Val	Thr	Thr	Pro	Ala	Gly	Ile	Gln	Arg	Ser	Thr	His					
				185					190					195					
Ala	Ile	Glu	Glu	Ala	Thr	Thr	Glu	Ser	Ala	Asn	Gly	Ile	Gln						
				200					205										

<210> 97
 <211> 2848
 <212> DNA
 <213> Homo Sapien

<400> 97
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 ttgggcgctg gagggcctgt cctgaccatg gtcctgcct ggctgtggct 150
 gctttgtgtc tccgtccccc aggcctctccc caaggcccag cctgcagagc 200
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 agaccatggc ttgatcgtga gtggacccag caaggacccc gatctggcca 2150

gtgggcacgg tccctacagc ttcacccttg gtcccaaccc cacggtgcaa 2200
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 ctgggcccta tgggaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaag 2848

<210> 98
 <211> 807
 <212> PRT
 <213> Homo Sapien

<400> 98
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 Glu Asn Tyr Gly Gly Asn Phe Pro Leu Tyr Leu Thr Lys Leu Pro
 35 40 45
 Leu Pro Arg Glu Gly Ala Glu Gly Gln Ile Val Leu Ser Gly Asp
 50 55 60
 Ser Gly Lys Ala Thr Glu Gly Pro Phe Ala Met Asp Pro Asp Ser
 65 70 75
 Gly Phe Leu Leu Val Thr Arg Ala Leu Asp Arg Glu Glu Gln Ala
 80 85 90
 Glu Tyr Gln Leu Gln Val Thr Leu Glu Met Gln Asp Gly His Val
 95 100 105
 Leu Trp Gly Pro Gln Pro Val Leu Val His Val Lys Asp Glu Asn
 110 115 120
 Asp Gln Val Pro His Phe Ser Gln Ala Ile Tyr Arg Ala Arg Leu
 125 130 135
 Ser Arg Gly Thr Arg Pro Gly Ile Pro Phe Leu Phe Leu Glu Ala
 140 145 150

Ser Asp Arg Asp	Glu 155	Pro Gly Thr Ala	Asn 160	Ser Asp Leu Arg	Phe 165
His Ile Leu Ser	Gln 170	Ala Pro Ala Gln	Pro 175	Ser Pro Asp Met	Phe 180
Gln Leu Glu Pro	Arg 185	Leu Gly Ala Leu	Ala 190	Leu Ser Pro Lys	Gly 195
Ser Thr Ser Leu	Asp 200	His Ala Leu Glu	Arg 205	Thr Tyr Gln Leu	Leu 210
Val Gln Val Lys	Asp 215	Met Gly Asp Gln	Ala 220	Ser Gly His Gln	Ala 225
Thr Ala Thr Val	Glu 230	Val Ser Ile Ile	Glu 235	Ser Thr Trp Val	Ser 240
Leu Glu Pro Ile	His 245	Leu Ala Glu Asn	Leu 250	Lys Val Leu Tyr	Pro 255
His His Met Ala	Gln 260	Val His Trp Ser	Gly 265	Gly Asp Val His	Tyr 270
His Leu Glu Ser	His 275	Pro Pro Gly Pro	Phe 280	Glu Val Asn Ala	Glu 285
Gly Asn Leu Tyr	Val 290	Thr Arg Glu Leu	Asp 295	Arg Glu Ala Gln	Ala 300
Glu Tyr Leu Leu	Gln 305	Val Arg Ala Gln	Asn 310	Ser His Gly Glu	Asp 315
Tyr Ala Ala Pro	Leu 320	Glu Leu His Val	Leu 325	Val Met Asp Glu	Asn 330
Asp Asn Val Pro	Ile 335	Cys Pro Pro Arg	Asp 340	Pro Thr Val Ser	Ile 345
Pro Glu Leu Ser	Pro 350	Pro Gly Thr Glu	Val 355	Thr Arg Leu Ser	Ala 360
Glu Asp Ala Asp	Ala 365	Pro Gly Ser Pro	Asn 370	Ser His Val Val	Tyr 375
Gln Leu Leu Ser	Pro 380	Glu Pro Glu Asp	Gly 385	Val Glu Gly Arg	Ala 390
Phe Gln Val Asp	Pro 395	Thr Ser Gly Ser	Val 400	Thr Leu Gly Val	Leu 405
Pro Leu Arg Ala	Gly 410	Gln Asn Ile Leu	Leu 415	Leu Val Leu Ala	Met 420
Asp Leu Ala Gly	Ala 425	Glu Gly Gly Phe	Ser 430	Ser Thr Cys Glu	Val 435
Glu Val Ala Val	Thr 440	Asp Ile Asn Asp	His 445	Ala Pro Glu Phe	Ile 450
Thr Ser Gln Ile	Gly 455	Pro Ile Ser Leu	Pro 460	Glu Asp Val Glu	Pro 465

Gly Thr Leu Val	Ala Met Leu Thr Ala	Ile Asp Ala Asp Leu Glu	470	475	480
Pro Ala Phe Arg	Leu Met Asp Phe Ala	Ile Glu Arg Gly Asp Thr	485	490	495
Glu Gly Thr Phe	Gly Leu Asp Trp Glu	Pro Asp Ser Gly His Val	500	505	510
Arg Leu Arg Leu	Cys Lys Asn Leu Ser	Tyr Glu Ala Ala Pro Ser	515	520	525
His Glu Val Val	Val Val Val Gln Ser	Val Ala Lys Leu Val Gly	530	535	540
Pro Gly Pro Gly	Pro Gly Ala Thr Ala	Thr Val Thr Val Leu Val	545	550	555
Glu Arg Val Met	Pro Pro Pro Lys Leu	Asp Gln Glu Ser Tyr Glu	560	565	570
Ala Ser Val Pro	Ile Ser Ala Pro Ala	Gly Ser Phe Leu Leu Thr	575	580	585
Ile Gln Pro Ser	Asp Pro Ile Ser Arg	Thr Leu Arg Phe Ser Leu	590	595	600
Val Asn Asp Ser	Glu Gly Trp Leu Cys	Ile Glu Lys Phe Ser Gly	605	610	615
Glu Val His Thr	Ala Gln Ser Leu Gln	Gly Ala Gln Pro Gly Asp	620	625	630
Thr Tyr Thr Val	Leu Val Glu Ala Gln	Asp Thr Ala Leu Thr Leu	635	640	645
Ala Pro Val Pro	Ser Gln Tyr Leu Cys	Thr Pro Arg Gln Asp His	650	655	660
Gly Leu Ile Val	Ser Gly Pro Ser Lys	Asp Pro Asp Leu Ala Ser	665	670	675
Gly His Gly Pro	Tyr Ser Phe Thr Leu	Gly Pro Asn Pro Thr Val	680	685	690
Gln Arg Asp Trp	Arg Leu Gln Thr Leu	Asn Gly Ser His Ala Tyr	695	700	705
Leu Thr Leu Ala	Leu His Trp Val Glu	Pro Arg Glu His Ile Ile	710	715	720
Pro Val Val Val	Ser His Asn Ala Gln	Met Trp Gln Leu Leu Val	725	730	735
Arg Val Ile Val	Cys Arg Cys Asn Val	Glu Gly Gln Cys Met Arg	740	745	750
Lys Val Gly Arg	Met Lys Gly Met Pro	Thr Lys Leu Ser Ala Val	755	760	765
Gly Ile Leu Val	Gly Thr Leu Val Ala	Ile Gly Ile Phe Leu Ile	770	775	780

Leu Ile Phe Thr His Trp Thr Met Ser Arg Lys Lys Asp Pro Asp
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Gln Pro Ala Asp Ser Val Pro Leu Lys Ala Thr Val
800 805

<210> 99
<211> 2436
<212> DNA
<213> Homo Sapien

<400> 99
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ggaccaggc atcttgcttt ccagccacaa agagacagat gaagatgcag 250
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<210> 100
<211> 596
<212> PRT
<213> Homo Sapien

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Met Lys Met Gln Lys Gly Asn Val Leu Leu Met Phe Gly Leu Leu
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Leu His Leu Glu Ala Ala Thr Asn Ser Asn Glu Thr Ser Thr Ser
          20          25          30

Ala Asn Thr Gly Ser Ser Val Ile Ser Ser Gly Ala Ser Thr Ala
          35          40          45

Thr Asn Ser Gly Ser Ser Val Thr Ser Ser Gly Val Ser Thr Ala
          50          55          60

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Thr	Ile	Ser	Gly	Ser	Ser	Val	Thr	Ser	Asn	Gly	Val	Ser	Ile	Val	
				65					70					75	
Thr	Asn	Ser	Glu	Phe	His	Thr	Thr	Ser	Ser	Gly	Ile	Ser	Thr	Ala	
				80					85					90	
Thr	Asn	Ser	Glu	Phe	Ser	Thr	Ala	Ser	Ser	Gly	Ile	Ser	Ile	Ala	
				95					100					105	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				110					115					120	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Pro	Ser	Ser	Gly	Ala	Ser	Thr	Val	
				125					130					135	
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				140					145					150	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala	
				155					160					165	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Leu	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				170					175					180	
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				185					190					195	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				200					205					210	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Arg	Ala	Ser	Thr	Ala	
				215					220					225	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				230					235					240	
Thr	Asn	Ser	Glu	Ser	Arg	Thr	Thr	Ser	Asn	Gly	Ala	Gly	Thr	Ala	
				245					250					255	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				260					265					270	
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				275					280					285	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				290					295					300	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	
				305					310					315	
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Gly	Thr	Ala	
				320					325					330	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ile	Ser	Thr	Val	
				335					340					345	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Pro	Ser	Ser	Gly	Ala	Asn	Thr	Ala	
				350					355					360	
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Asn	Thr	Ala	
				365					370					375	

Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ala	Ser	Thr	Ala	380	385	390
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Val	Ser	Thr	Ala	395	400	405
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Ser	Thr	Ala	410	415	420
Thr	Asn	Ser	Asp	Ser	Ser	Thr	Thr	Ser	Ser	Glu	Ala	Ser	Thr	Ala	425	430	435
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Val	Ser	Ser	Gly	Ile	Ser	Thr	Val	440	445	450
Thr	Asn	Ser	Glu	Ser	Ser	Thr	Thr	Ser	Ser	Gly	Ala	Asn	Thr	Ala	455	460	465
Thr	Asn	Ser	Gly	Ser	Ser	Val	Thr	Ser	Ala	Gly	Ser	Gly	Thr	Ala	470	475	480
Ala	Leu	Thr	Gly	Met	His	Thr	Thr	Ser	His	Ser	Ala	Ser	Thr	Ala	485	490	495
Val	Ser	Glu	Ala	Lys	Pro	Gly	Gly	Ser	Leu	Val	Pro	Trp	Glu	Ile	500	505	510
Phe	Leu	Ile	Thr	Leu	Val	Ser	Val	Val	Ala	Ala	Val	Gly	Leu	Phe	515	520	525
Ala	Gly	Leu	Phe	Phe	Cys	Val	Arg	Asn	Ser	Leu	Ser	Leu	Arg	Asn	530	535	540
Thr	Phe	Asn	Thr	Ala	Val	Tyr	His	Pro	His	Gly	Leu	Asn	His	Gly	545	550	555
Leu	Gly	Pro	Gly	Pro	Gly	Gly	Asn	His	Gly	Ala	Pro	His	Arg	Pro	560	565	570
Arg	Trp	Ser	Pro	Asn	Trp	Phe	Trp	Arg	Arg	Pro	Val	Ser	Ser	Ile	575	580	585
Ala	Met	Glu	Met	Ser	Gly	Arg	Asn	Ser	Gly	Pro					590	595	

<210> 101

<211> 1728

<212> DNA

<213> Homo Sapien

<400> 101

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tgaaaaacag agtgggtact ctcttctggg aagctggcaa caaatggatg 200
atgtgatata tgcattccag gggaaggga attgtggtgc ttctgaaccc 250
atggtcaatt aacgaggcag tttctagcta ctgcacgtac ttcataaagc 300

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<210> 102
 <211> 414
 <212> PRT
 <213> Homo Sapien

<400> 102

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Gln	Asp	Ser	Lys	Ser	Phe	Gly	Ile	Met	Val	Ser	Trp	Lys	Gly	Ile	35	40	45	
Tyr	Phe	Ile	Leu	Thr	Leu	Phe	Trp	Gly	Ser	Phe	Phe	Gly	Ser	Ile	50	55	60	
Phe	Met	Leu	Ser	Pro	Phe	Leu	Pro	Leu	Met	Phe	Val	Asn	Pro	Ser	65	70	75	
Trp	Tyr	Arg	Trp	Ile	Asn	Asn	Arg	Leu	Val	Ala	Thr	Trp	Leu	Thr	80	85	90	
Leu	Pro	Val	Ala	Leu	Leu	Glu	Thr	Met	Phe	Gly	Val	Lys	Val	Ile	95	100	105	
Ile	Thr	Gly	Asp	Ala	Phe	Val	Pro	Gly	Glu	Arg	Ser	Val	Ile	Ile	110	115	120	
Met	Asn	His	Arg	Thr	Arg	Met	Asp	Trp	Met	Phe	Leu	Trp	Asn	Cys	125	130	135	
Leu	Met	Arg	Tyr	Ser	Tyr	Leu	Arg	Leu	Glu	Lys	Ile	Cys	Leu	Lys	140	145	150	
Ala	Ser	Leu	Lys	Gly	Val	Pro	Gly	Phe	Gly	Trp	Ala	Met	Gln	Ala	155	160	165	
Ala	Ala	Tyr	Ile	Phe	Ile	His	Arg	Lys	Trp	Lys	Asp	Asp	Lys	Ser	170	175	180	
His	Phe	Glu	Asp	Met	Ile	Asp	Tyr	Phe	Cys	Asp	Ile	His	Glu	Pro	185	190	195	
Leu	Gln	Leu	Leu	Ile	Phe	Pro	Glu	Gly	Thr	Asp	Leu	Thr	Glu	Asn	200	205	210	
Ser	Lys	Ser	Arg	Ser	Asn	Ala	Phe	Ala	Glu	Lys	Asn	Gly	Leu	Gln	215	220	225	
Lys	Tyr	Glu	Tyr	Val	Leu	His	Pro	Arg	Thr	Thr	Gly	Phe	Thr	Phe	230	235	240	
Val	Val	Asp	Arg	Leu	Arg	Glu	Gly	Lys	Asn	Leu	Asp	Ala	Val	His	245	250	255	
Asp	Ile	Thr	Val	Ala	Tyr	Pro	His	Asn	Ile	Pro	Gln	Ser	Glu	Lys	260	265	270	
His	Leu	Leu	Gln	Gly	Asp	Phe	Pro	Arg	Glu	Ile	His	Phe	His	Val	275	280	285	
His	Arg	Tyr	Pro	Ile	Asp	Thr	Leu	Pro	Thr	Ser	Lys	Glu	Asp	Leu	290	295	300	
Gln	Leu	Trp	Cys	His	Lys	Arg	Trp	Glu	Glu	Lys	Glu	Glu	Arg	Leu	305	310	315	

Arg	Ser	Phe	Tyr	Gln	Gly	Glu	Lys	Asn	Phe	Tyr	Phe	Thr	Gly	Gln	320	325	330
Ser	Val	Ile	Pro	Pro	Cys	Lys	Ser	Glu	Leu	Arg	Val	Leu	Val	Val	335	340	345
Lys	Leu	Leu	Ser	Ile	Leu	Tyr	Trp	Thr	Leu	Phe	Ser	Pro	Ala	Met	350	355	360
Cys	Leu	Leu	Ile	Tyr	Leu	Tyr	Ser	Leu	Val	Lys	Trp	Tyr	Phe	Ile	365	370	375
Ile	Thr	Ile	Val	Ile	Phe	Val	Leu	Gln	Glu	Arg	Ile	Phe	Gly	Gly	380	385	390
Leu	Glu	Ile	Ile	Glu	Leu	Ala	Cys	Tyr	Arg	Leu	Leu	His	Lys	Gln	395	400	405
Pro	His	Leu	Asn	Ser	Lys	Lys	Asn	Glu							410		

<210> 103
 <211> 2403
 <212> DNA
 <213> Homo Sapien

<400> 103
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 aaa 2403

<210> 104

<211> 466
 <212> PRT
 <213> Homo Sapien

<400> 104

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Ser	Gly	Gln	Trp	Gln	Val	Thr	Gly	Pro	Gly	Lys	Phe	Val	Gln	Ala	20	25	30	
Leu	Val	Gly	Glu	Asp	Ala	Val	Phe	Ser	Cys	Ser	Leu	Phe	Pro	Glu	35	40	45	
Thr	Ser	Ala	Glu	Ala	Met	Glu	Val	Arg	Phe	Phe	Arg	Asn	Gln	Phe	50	55	60	
His	Ala	Val	Val	His	Leu	Tyr	Arg	Asp	Gly	Glu	Asp	Trp	Glu	Ser	65	70	75	
Lys	Gln	Met	Pro	Gln	Tyr	Arg	Gly	Arg	Thr	Glu	Phe	Val	Lys	Asp	80	85	90	
Ser	Ile	Ala	Gly	Gly	Arg	Val	Ser	Leu	Arg	Leu	Lys	Asn	Ile	Thr	95	100	105	
Pro	Ser	Asp	Ile	Gly	Leu	Tyr	Gly	Cys	Trp	Phe	Ser	Ser	Gln	Ile	110	115	120	
Tyr	Asp	Glu	Glu	Ala	Thr	Trp	Glu	Leu	Arg	Val	Ala	Ala	Leu	Gly	125	130	135	
Ser	Leu	Pro	Leu	Ile	Ser	Ile	Val	Gly	Tyr	Val	Asp	Gly	Gly	Ile	140	145	150	
Gln	Leu	Leu	Cys	Leu	Ser	Ser	Gly	Trp	Phe	Pro	Gln	Pro	Thr	Ala	155	160	165	
Lys	Trp	Lys	Gly	Pro	Gln	Gly	Gln	Asp	Leu	Ser	Ser	Asp	Ser	Arg	170	175	180	
Ala	Asn	Ala	Asp	Gly	Tyr	Ser	Leu	Tyr	Asp	Val	Glu	Ile	Ser	Ile	185	190	195	
Ile	Val	Gln	Glu	Asn	Ala	Gly	Ser	Ile	Leu	Cys	Ser	Ile	His	Leu	200	205	210	
Ala	Glu	Gln	Ser	His	Glu	Val	Glu	Ser	Lys	Val	Leu	Ile	Gly	Glu	215	220	225	
Thr	Phe	Phe	Gln	Pro	Ser	Pro	Trp	Arg	Leu	Ala	Ser	Ile	Leu	Leu	230	235	240	
Gly	Leu	Leu	Cys	Gly	Ala	Leu	Cys	Gly	Val	Val	Met	Gly	Met	Ile	245	250	255	
Ile	Val	Phe	Phe	Lys	Ser	Lys	Gly	Lys	Ile	Gln	Ala	Glu	Leu	Asp	260	265	270	
Trp	Arg	Arg	Lys	His	Gly	Gln	Ala	Glu	Leu	Arg	Asp	Ala	Arg	Lys	275	280	285	
His	Ala	Val	Glu	Val	Thr	Leu	Asp	Pro	Glu	Thr	Ala	His	Pro	Lys				

290										295					300				
Leu	Cys	Val	Ser	Asp	Leu	Lys	Thr	Val	Thr	His	Arg	Lys	Ala	Pro					
				305					310					315					
Gln	Glu	Val	Pro	His	Ser	Glu	Lys	Arg	Phe	Thr	Arg	Lys	Ser	Val					
				320					325					330					
Val	Ala	Ser	Gln	Gly	Phe	Gln	Ala	Gly	Arg	His	Tyr	Trp	Glu	Val					
				335					340					345					
Asp	Val	Gly	Gln	Asn	Val	Gly	Trp	Tyr	Val	Gly	Val	Cys	Arg	Asp					
				350					355					360					
Asp	Val	Asp	Arg	Gly	Lys	Asn	Asn	Val	Thr	Leu	Ser	Pro	Asn	Asn					
				365					370					375					
Gly	Tyr	Trp	Val	Leu	Arg	Leu	Thr	Thr	Glu	His	Leu	Tyr	Phe	Thr					
				380					385					390					
Phe	Asn	Pro	His	Phe	Ile	Ser	Leu	Pro	Pro	Ser	Thr	Pro	Pro	Thr					
				395					400					405					
Arg	Val	Gly	Val	Phe	Leu	Asp	Tyr	Glu	Gly	Gly	Thr	Ile	Ser	Phe					
				410					415					420					
Phe	Asn	Thr	Asn	Asp	Gln	Ser	Leu	Ile	Tyr	Thr	Leu	Leu	Thr	Cys					
				425					430					435					
Gln	Phe	Glu	Gly	Leu	Leu	Arg	Pro	Tyr	Ile	Gln	His	Ala	Met	Tyr					
				440					445					450					
Asp	Glu	Glu	Lys	Gly	Thr	Pro	Ile	Phe	Ile	Cys	Pro	Val	Ser	Trp					
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Gly

<210> 105
 <211> 2103
 <212> DNA
 <213> Homo Sapien

<400> 105
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 gtcattcttca tatccctgat tgtcctggca gtgtgcattg gactcactgt 150
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 tgtcatttac aactgacaaa ctatatgctg agtttggcag agaggcttct 250
 aacaatttta cagaaatgag ccagagactt gaatcaatgg tgaaaaatgc 300
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 agatttcact ctactgagga tcctgaaact gtagataaaa ttgttcaact 450
 tgttttacat gaaaagctgc aagatgctgt aggacccct aaagtagatc 500

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ctaaaccatt gctgcggaac acgaagaagt aaaactctag gtcagagtct 600
caggatcggt ggtgggacag aagtagaaga gggatgaatgg cctgggcagg 650
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caaacttcat gcaatgtact tgttctaagc aaattaaagc aaatatttat 2050
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cca 2103

<210> 106

<211> 423

<212> PRT

<213> Homo Sapien

<400> 106

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				20					25					30
Val	Leu	Ala	Val	Cys	Ile	Gly	Leu	Thr	Val	His	Tyr	Val	Arg	Tyr
				35					40					45
Asn	Gln	Lys	Lys	Thr	Tyr	Asn	Tyr	Tyr	Ser	Thr	Leu	Ser	Phe	Thr
				50					55					60
Thr	Asp	Lys	Leu	Tyr	Ala	Glu	Phe	Gly	Arg	Glu	Ala	Ser	Asn	Asn
				65					70					75
Phe	Thr	Glu	Met	Ser	Gln	Arg	Leu	Glu	Ser	Met	Val	Lys	Asn	Ala
				80					85					90
Phe	Tyr	Lys	Ser	Pro	Leu	Arg	Glu	Glu	Phe	Val	Lys	Ser	Gln	Val
				95					100					105
Ile	Lys	Phe	Ser	Gln	Gln	Lys	His	Gly	Val	Leu	Ala	His	Met	Leu
				110					115					120
Leu	Ile	Cys	Arg	Phe	His	Ser	Thr	Glu	Asp	Pro	Glu	Thr	Val	Asp
				125					130					135
Lys	Ile	Val	Gln	Leu	Val	Leu	His	Glu	Lys	Leu	Gln	Asp	Ala	Val
				140					145					150
Gly	Pro	Pro	Lys	Val	Asp	Pro	His	Ser	Val	Lys	Ile	Lys	Lys	Ile
				155					160					165
Asn	Lys	Thr	Glu	Thr	Asp	Ser	Tyr	Leu	Asn	His	Cys	Cys	Gly	Thr
				170					175					180
Arg	Arg	Ser	Lys	Thr	Leu	Gly	Gln	Ser	Leu	Arg	Ile	Val	Gly	Gly
				185					190					195
Thr	Glu	Val	Glu	Glu	Gly	Glu	Trp	Pro	Trp	Gln	Ala	Ser	Leu	Gln
				200					205					210
Trp	Asp	Gly	Ser	His	Arg	Cys	Gly	Ala	Thr	Leu	Ile	Asn	Ala	Thr
				215					220					225
Trp	Leu	Val	Ser	Ala	Ala	His	Cys	Phe	Thr	Thr	Tyr	Lys	Asn	Pro
				230					235					240
Ala	Arg	Trp	Thr	Ala	Ser	Phe	Gly	Val	Thr	Ile	Lys	Pro	Ser	Lys
				245					250					255
Met	Lys	Arg	Gly	Leu	Arg	Arg	Ile	Ile	Val	His	Glu	Lys	Tyr	Lys
				260					265					270
His	Pro	Ser	His	Asp	Tyr	Asp	Ile	Ser	Leu	Ala	Glu	Leu	Ser	Ser

275										280				285			
Pro	Val	Pro	Tyr	Thr	Asn	Ala	Val	His	Arg	Val	Cys	Leu	Pro	Asp			
				290					295					300			
Ala	Ser	Tyr	Glu	Phe	Gln	Pro	Gly	Asp	Val	Met	Phe	Val	Thr	Gly			
				305					310					315			
Phe	Gly	Ala	Leu	Lys	Asn	Asp	Gly	Tyr	Ser	Gln	Asn	His	Leu	Arg			
				320					325					330			
Gln	Ala	Gln	Val	Thr	Leu	Ile	Asp	Ala	Thr	Thr	Cys	Asn	Glu	Pro			
				335					340					345			
Gln	Ala	Tyr	Asn	Asp	Ala	Ile	Thr	Pro	Arg	Met	Leu	Cys	Ala	Gly			
				350					355					360			
Ser	Leu	Glu	Gly	Lys	Thr	Asp	Ala	Cys	Gln	Gly	Asp	Ser	Gly	Gly			
				365					370					375			
Pro	Leu	Val	Ser	Ser	Asp	Ala	Arg	Asp	Ile	Trp	Tyr	Leu	Ala	Gly			
				380					385					390			
Ile	Val	Ser	Trp	Gly	Asp	Glu	Cys	Ala	Lys	Pro	Asn	Lys	Pro	Gly			
				395					400					405			
Val	Tyr	Thr	Arg	Val	Thr	Ala	Leu	Arg	Asp	Trp	Ile	Thr	Ser	Lys			
				410					415					420			

Thr Gly Ile

<210> 107
 <211> 2397
 <212> DNA
 <213> Homo Sapien

<400> 107
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<210> 108
 <211> 305
 <212> PRT
 <213> Homo Sapien

<400> 108
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 Val Ser Ala Trp Met Arg Asp Tyr Leu Asn Asn Val Leu Thr Leu
 35 40 45
 Thr Ala Glu Thr Arg Val Glu Glu Ala Val Ile Leu Thr Tyr Phe
 50 55 60
 Pro Val Val His Pro Val Met Ile Ala Val Cys Cys Phe Leu Ile
 65 70 75
 Ile Val Gly Met Leu Gly Tyr Cys Gly Thr Val Lys Arg Asn Leu
 80 85 90
 Leu Leu Leu Ala Trp Tyr Phe Gly Ser Leu Leu Val Ile Phe Cys
 95 100 105
 Val Glu Leu Ala Cys Gly Val Trp Thr Tyr Glu Gln Glu Leu Met
 110 115 120
 Val Pro Val Gln Trp Ser Asp Met Val Thr Leu Lys Ala Arg Met
 125 130 135
 Thr Asn Tyr Gly Leu Pro Arg Tyr Arg Trp Leu Thr His Ala Trp
 140 145 150
 Asn Phe Phe Gln Arg Glu Phe Lys Cys Cys Gly Val Val Tyr Phe
 155 160 165
 Thr Asp Trp Leu Glu Met Thr Glu Met Asp Trp Pro Pro Asp Ser
 170 175 180
 Cys Cys Val Arg Glu Phe Pro Gly Cys Ser Lys Gln Ala His Gln
 185 190 195
 Glu Asp Leu Ser Asp Leu Tyr Gln Glu Gly Cys Gly Lys Lys Met
 200 205 210
 Tyr Ser Phe Leu Arg Gly Thr Lys Gln Leu Gln Val Leu Arg Phe
 215 220 225
 Leu Gly Ile Ser Ile Gly Val Thr Gln Ile Leu Ala Met Ile Leu
 230 235 240
 Thr Ile Thr Leu Leu Trp Ala Leu Tyr Tyr Asp Arg Arg Glu Pro
 245 250 255

Gly	Thr	Asp	Gln	Met	Met	Ser	Leu	Lys	Asn	Asp	Asn	Ser	Gln	His
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Leu	Ser	Cys	Pro	Ser	Val	Glu	Leu	Leu	Lys	Pro	Ser	Leu	Ser	Arg
				275					280					285
Ile	Phe	Glu	His	Thr	Ser	Met	Ala	Asn	Ser	Phe	Asn	Thr	His	Phe
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				305										

<210> 109
 <211> 2339
 <212> DNA
 <213> Homo Sapien

<400> 109
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gagtccttgc attggacggc tctgctcttt ggagcttctc cccccaccgc 1900
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cagactccca gcaccaactc actctgattc tggtecatte agtgggcaca 2000
ggtcacagca ctgctgaaca atgtggcctg ggtggggttt catctttcta 2050
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aacagttact gaaattatga cttaaatacc caatgactcc ttaaatatgt 2250
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<210> 110
<211> 545
<212> PRT
<213> Homo Sapien

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<400> 110
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Ser  Val  Ser  Pro  Val  Ala  Leu  Asp  Pro  Cys  Ser  Ala  Tyr  Ile  Ser
             20             25             30

Leu  Asn  Glu  Pro  Trp  Arg  Asn  Thr  Asp  His  Gln  Leu  Asp  Glu  Ser
             35             40             45

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Gln	Gly	Pro	Pro	Leu	Cys	Asp	Asn	His	Val	Asn	Gly	Glu	Trp	Tyr		50	55	60
His	Phe	Thr	Gly	Met	Ala	Gly	Asp	Ala	Met	Pro	Thr	Phe	Cys	Ile		65	70	75
Pro	Glu	Asn	His	Cys	Gly	Thr	His	Ala	Pro	Val	Trp	Leu	Asn	Gly		80	85	90
Ser	His	Pro	Leu	Glu	Gly	Asp	Gly	Ile	Val	Gln	Arg	Gln	Ala	Cys		95	100	105
Ala	Ser	Phe	Asn	Gly	Asn	Cys	Cys	Leu	Trp	Asn	Thr	Thr	Val	Glu		110	115	120
Val	Lys	Ala	Cys	Pro	Gly	Gly	Tyr	Tyr	Val	Tyr	Arg	Leu	Thr	Lys		125	130	135
Pro	Ser	Val	Cys	Phe	His	Val	Tyr	Cys	Gly	His	Phe	Tyr	Asp	Ile		140	145	150
Cys	Asp	Glu	Asp	Cys	His	Gly	Ser	Cys	Ser	Asp	Thr	Ser	Glu	Cys		155	160	165
Thr	Cys	Ala	Pro	Gly	Thr	Val	Leu	Gly	Pro	Asp	Arg	Gln	Thr	Cys		170	175	180
Phe	Asp	Glu	Asn	Glu	Cys	Glu	Gln	Asn	Asn	Gly	Gly	Cys	Ser	Glu		185	190	195
Ile	Cys	Val	Asn	Leu	Lys	Asn	Ser	Tyr	Arg	Cys	Glu	Cys	Gly	Val		200	205	210
Gly	Arg	Val	Leu	Arg	Ser	Asp	Gly	Lys	Thr	Cys	Glu	Asp	Val	Glu		215	220	225
Gly	Cys	His	Asn	Asn	Asn	Gly	Gly	Cys	Ser	His	Ser	Cys	Leu	Gly		230	235	240
Ser	Glu	Lys	Gly	Tyr	Gln	Cys	Glu	Cys	Pro	Arg	Gly	Leu	Val	Leu		245	250	255
Ser	Glu	Asp	Asn	His	Thr	Cys	Gln	Val	Pro	Val	Leu	Cys	Lys	Ser		260	265	270
Asn	Ala	Ile	Glu	Val	Asn	Ile	Pro	Arg	Glu	Leu	Val	Gly	Gly	Leu		275	280	285
Glu	Leu	Phe	Leu	Thr	Asn	Thr	Ser	Cys	Arg	Gly	Val	Ser	Asn	Gly		290	295	300
Thr	His	Val	Asn	Ile	Leu	Phe	Ser	Leu	Lys	Thr	Cys	Gly	Thr	Val		305	310	315
Val	Asp	Val	Val	Asn	Asp	Lys	Ile	Val	Ala	Ser	Asn	Leu	Val	Thr		320	325	330
Gly	Leu	Pro	Lys	Gln	Thr	Pro	Gly	Ser	Ser	Gly	Asp	Phe	Ile	Ile		335	340	345
Arg	Thr	Ser	Lys	Leu	Leu	Ile	Pro	Val	Thr	Cys	Glu	Phe	Pro	Arg		350	355	360

Leu Tyr Thr Ile	Ser Glu Gly Tyr Val	Pro Asn Leu Arg Asn Ser
365	370	375
Pro Leu Glu Ile	Met Ser Arg Asn His	Gly Ile Phe Pro Phe Thr
380	385	390
Leu Glu Ile Phe	Lys Asp Asn Glu Phe	Glu Glu Pro Tyr Arg Glu
395	400	405
Ala Leu Pro Thr	Leu Lys Leu Arg Asp	Ser Leu Tyr Phe Gly Ile
410	415	420
Glu Pro Val Val	His Val Ser Gly Leu	Glu Ser Leu Val Glu Ser
425	430	435
Cys Phe Ala Thr	Pro Thr Ser Lys Ile	Asp Glu Val Leu Lys Tyr
440	445	450
Tyr Leu Ile Arg	Asp Gly Cys Val Ser	Asp Asp Ser Val Lys Gln
455	460	465
Tyr Thr Ser Arg	Asp His Leu Ala Lys	His Phe Gln Val Pro Val
470	475	480
Phe Lys Phe Val	Gly Lys Asp His Lys	Glu Val Phe Leu His Cys
485	490	495
Arg Val Leu Val	Cys Gly Val Leu Asp	Glu Arg Ser Arg Cys Ala
500	505	510
Gln Gly Cys His	Arg Arg Met Arg Arg	Gly Ala Gly Gly Glu Asp
515	520	525
Ser Ala Gly Leu	Gln Gly Gln Thr Leu	Thr Gly Gly Pro Ile Arg
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Ile Asp Trp Glu Asp		
545		

<210> 111
 <211> 2063
 <212> DNA
 <213> Homo Sapien

<400> 111
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 ttctgacctg ctggccagcc aggacctgtg tggggaggcc ctctgctgc 150
 cttggggtga caatctcagc tccaggctac agggagaccg ggaggatcac 200
 agagccagca tgttacagga tcctgacagt gatcaacctc tgaacagcct 250
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 cgggcagcct ctccacttca tcccgaggaa gcagctgtgt gacggagagc 450

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 aatgcactgc cctactgttg gtatgactac cgttacctac tgttgtcatt 2000
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<210> 112

<211> 432

<212> PRT

<213> Homo Sapien

<400> 112

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				20					25					30
Lys	Val	Gly	Ile	Pro	Ile	Ile	Ile	Ala	Leu	Leu	Ser	Leu	Ala	Ser
				35					40					45
Ile	Ile	Ile	Val	Val	Val	Leu	Ile	Lys	Val	Ile	Leu	Asp	Lys	Tyr
				50					55					60
Tyr	Phe	Leu	Cys	Gly	Gln	Pro	Leu	His	Phe	Ile	Pro	Arg	Lys	Gln
				65					70					75
Leu	Cys	Asp	Gly	Glu	Leu	Asp	Cys	Pro	Leu	Gly	Glu	Asp	Glu	Glu
				80					85					90
His	Cys	Val	Lys	Ser	Phe	Pro	Glu	Gly	Pro	Ala	Val	Ala	Val	Arg
				95					100					105
Leu	Ser	Lys	Asp	Arg	Ser	Thr	Leu	Gln	Val	Leu	Asp	Ser	Ala	Thr
				110					115					120
Gly	Asn	Trp	Phe	Ser	Ala	Cys	Phe	Asp	Asn	Phe	Thr	Glu	Ala	Leu
				125					130					135
Ala	Glu	Thr	Ala	Cys	Arg	Gln	Met	Gly	Tyr	Ser	Arg	Ala	Val	Glu
				140					145					150
Ile	Gly	Pro	Asp	Gln	Asp	Leu	Asp	Val	Val	Glu	Ile	Thr	Glu	Asn
				155					160					165
Ser	Gln	Glu	Leu	Arg	Met	Arg	Asn	Ser	Ser	Gly	Pro	Cys	Leu	Ser
				170					175					180
Gly	Ser	Leu	Val	Ser	Leu	His	Cys	Leu	Ala	Cys	Gly	Lys	Ser	Leu
				185					190					195
Lys	Thr	Pro	Arg	Val	Val	Gly	Gly	Glu	Glu	Ala	Ser	Val	Asp	Ser
				200					205					210
Trp	Pro	Trp	Gln	Val	Ser	Ile	Gln	Tyr	Asp	Lys	Gln	His	Val	Cys
				215					220					225
Gly	Gly	Ser	Ile	Leu	Asp	Pro	His	Trp	Val	Leu	Thr	Ala	Ala	His
				230					235					240
Cys	Phe	Arg	Lys	His	Thr	Asp	Val	Phe	Asn	Trp	Lys	Val	Arg	Ala
				245					250					255
Gly	Ser	Asp	Lys	Leu	Gly	Ser	Phe	Pro	Ser	Leu	Ala	Val	Ala	Lys
				260					265					270
Ile	Ile	Ile	Ile	Glu	Phe	Asn	Pro	Met	Tyr	Pro	Lys	Asp	Asn	Asp

275										280				285			
Ile	Ala	Leu	Met	Lys	Leu	Gln	Phe	Pro	Leu	Thr	Phe	Ser	Gly	Thr			
				290					295					300			
Val	Arg	Pro	Ile	Cys	Leu	Pro	Phe	Phe	Asp	Glu	Glu	Leu	Thr	Pro			
				305					310					315			
Ala	Thr	Pro	Leu	Trp	Ile	Ile	Gly	Trp	Gly	Phe	Thr	Lys	Gln	Asn			
				320					325					330			
Gly	Gly	Lys	Met	Ser	Asp	Ile	Leu	Leu	Gln	Ala	Ser	Val	Gln	Val			
				335					340					345			
Ile	Asp	Ser	Thr	Arg	Cys	Asn	Ala	Asp	Asp	Ala	Tyr	Gln	Gly	Glu			
				350					355					360			
Val	Thr	Glu	Lys	Met	Met	Cys	Ala	Gly	Ile	Pro	Glu	Gly	Gly	Val			
				365					370					375			
Asp	Thr	Cys	Gln	Gly	Asp	Ser	Gly	Gly	Pro	Leu	Met	Tyr	Gln	Ser			
				380					385					390			
Asp	Gln	Trp	His	Val	Val	Gly	Ile	Val	Ser	Trp	Gly	Tyr	Gly	Cys			
				395					400					405			
Gly	Gly	Pro	Ser	Thr	Pro	Gly	Val	Tyr	Thr	Lys	Val	Ser	Ala	Tyr			
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Leu	Asn	Trp	Ile	Tyr	Asn	Val	Trp	Lys	Ala	Glu	Leu						
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<210> 113
 <211> 1768
 <212> DNA
 <213> Homo Sapien

<400> 113
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 ctgtggctct ggcccaaacc tgaccttcac tctggaacga gaacagaggt 300
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 ctctcgctgg agcagtgcc tcaccaactg tctcacgtct ggaggcactg 400
 actcgggcag tgcaggtagc tgagcctctt ggtagctgcg gctttcaagg 450
 tgggccttgc cctggccgta gaagggattg acaagcccga agatttcata 500
 ggcgatggct cccactgccc aggcatcagc cttgctgtag tcaatcactg 550
 ccctggggcc aggacgggcc gtggacacct gctcagaagc agtgggtgag 600
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atccatgggc taatctgaac tctgtcccaa ggaaccaga gcttgagtga 700
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gagaattact tgaacctggg aggtgaagga ggctgagaca ggagaatcac 1700
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aattatggtt atttgtaa 1768

<210> 114
<211> 109
<212> PRT
<213> Homo Sapien

<400> 114
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20 25 30
Asp Leu Ser Leu Trp Leu Trp Pro Lys Pro Asp Leu His Ser Gly
35 40 45
Thr Arg Thr Glu Val Ser Thr His Thr Val Pro Ser Lys Pro Gly
50 55 60

Thr Ala Ser Pro Cys Trp Pro Leu Ala Gly Ala Val Pro Ser Pro
 65 70 75
 Thr Val Ser Arg Leu Glu Ala Leu Thr Arg Ala Val Gln Val Ala
 80 85 90
 Glu Pro Leu Gly Ser Cys Gly Phe Gln Gly Gly Pro Cys Pro Gly
 95 100 105
 Arg Arg Arg Asp

<210> 115
 <211> 1197
 <212> DNA
 <213> Homo Sapien

<400> 115
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 gagagaccat ggcaaagaat cctccagaga attgtgaaga ctgtcacatt 100
 ctaaatgcag aagcttttta atccaagaaa atatgtaaat cacttaagat 150
 ttgtggactg gtgtttggta tcctggccct aactctaatt gtctgtttt 200
 gggggagcaa gcacttctgg ccggagggtac ccaaaaaagc ctatgacatg 250
 gagcacactt tctacagcaa tggagagaag aagaagattt acatggaaat 300
 tgatcctgtg accagaactg aaatattcag aagcggaaat ggcactgatg 350
 aaacattgga agtgcacgac tttaaaaacg gatacactgg catctacttc 400
 gtgggtcttc aaaaatgttt tatcaaaact cagattaaag tgattcctga 450
 attttctgaa ccagaagagg aaatagatga gaatgaagaa attaccacaa 500
 ctttctttga acagtcagtg atttgggtcc cagcagaaaa gcctattgaa 550
 aaccgagatt ttcttaaaaa ttccaaaatt ctggagattt gtgataacgt 600
 gaccatgtat tggatcaatc ccaacttaat atcagtttct gagttacaag 650
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 gggaggggtct aataggaggt ttgagctcaa atgcttaaac tgctggcaac 1050
 atataataaa tgcattgctat tcaatgaatt tctgcctatg aggcattctg 1100
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tgttctaata aacttctaca ttatcaccaa aaaaaaaaaa aaaaaaa 1197

<210> 116

<211> 317

<212> PRT

<213> Homo Sapien

<400> 116

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Ile	Cys	Gly	Leu	Val	Phe	Gly	Ile	Leu	Ala	Leu	Thr	Leu	Ile	Val	35	40	45	
Leu	Phe	Trp	Gly	Ser	Lys	His	Phe	Trp	Pro	Glu	Val	Pro	Lys	Lys	50	55	60	
Ala	Tyr	Asp	Met	Glu	His	Thr	Phe	Tyr	Ser	Asn	Gly	Glu	Lys	Lys	65	70	75	
Lys	Ile	Tyr	Met	Glu	Ile	Asp	Pro	Val	Thr	Arg	Thr	Glu	Ile	Phe	80	85	90	
Arg	Ser	Gly	Asn	Gly	Thr	Asp	Glu	Thr	Leu	Glu	Val	His	Asp	Phe	95	100	105	
Lys	Asn	Gly	Tyr	Thr	Gly	Ile	Tyr	Phe	Val	Gly	Leu	Gln	Lys	Cys	110	115	120	
Phe	Ile	Lys	Thr	Gln	Ile	Lys	Val	Ile	Pro	Glu	Phe	Ser	Glu	Pro	125	130	135	
Glu	Glu	Glu	Ile	Asp	Glu	Asn	Glu	Glu	Ile	Thr	Thr	Thr	Phe	Phe	140	145	150	
Glu	Gln	Ser	Val	Ile	Trp	Val	Pro	Ala	Glu	Lys	Pro	Ile	Glu	Asn	155	160	165	
Arg	Asp	Phe	Leu	Lys	Asn	Ser	Lys	Ile	Leu	Glu	Ile	Cys	Asp	Asn	170	175	180	
Val	Thr	Met	Tyr	Trp	Ile	Asn	Pro	Thr	Leu	Ile	Ser	Val	Ser	Glu	185	190	195	
Leu	Gln	Asp	Phe	Glu	Glu	Glu	Gly	Glu	Asp	Leu	His	Phe	Pro	Ala	200	205	210	
Asn	Glu	Lys	Lys	Gly	Ile	Glu	Gln	Asn	Glu	Gln	Trp	Val	Val	Pro	215	220	225	
Gln	Val	Lys	Val	Glu	Lys	Thr	Arg	His	Ala	Arg	Gln	Ala	Ser	Glu	230	235	240	
Glu	Glu	Leu	Pro	Ile	Asn	Asp	Tyr	Thr	Glu	Asn	Gly	Ile	Glu	Phe	245	250	255	
Asp	Pro	Met	Leu	Asp	Glu	Arg	Gly	Tyr	Cys	Cys	Ile	Tyr	Cys	Arg	260	265	270	
Arg	Gly	Asn	Arg	Tyr	Cys	Arg	Arg	Val	Cys	Glu	Pro	Leu	Leu	Gly				

	275		280		285
Tyr Tyr Pro Tyr	Pro Tyr Cys Tyr Gln Gly Gly Arg Val Ile Cys				
	290		295		300
Arg Val Ile Met	Pro Cys Asn Trp Trp Val Ala Arg Met Leu Gly				
	305		310		315

Arg Val

<210> 117
 <211> 2121
 <212> DNA
 <213> Homo Sapien

<400> 117
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 gcatcgcggc caccgggatg gacatgtgga gcaccagga cctgtacgac 200
 aaccccgta cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt 250
 gaggcagagt tcaggcttca ccgaatgcag gccctatttc accatcctgg 300
 gacttccagc catgctgcag gcagtgcgag ccctgatgat cgtaggcatc 350
 gtcttgggtg ccattggcct cctggtatcc atctttgccc tgaaatgcat 400
 ccgcattggc agcatggagg actctgccaa agccaacatg aactgacct 450
 ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct 500
 gtgtttgcca acatgctggg gactaacttc tggatgtcca cagctaacat 550
 gtacaccggc atgggtggga tgggtgcagac tggtcagacc aggtacacat 600
 ttggtgcggc tctgttcgtg ggctgggtcg ctggaggcct cacactaatt 650
 gggggtgtga tgatgtgcat cgcctgccgg ggctggcac cagaagaaac 700
 caactacaaa gccgtttctt atcatgcctc aggccacagt gttgcctaca 750
 agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac 800
 agaagatat acgatggagg tgcccgaca gaggacgagg tacaatctta 850
 tccttccaag cagactatg tgtaatgctc taagacctct cagcacgggc 900
 ggaagaaact ccgggagagc tcacccaaaa aacaaggaga tcccatctag 950
 atttcttctt gcttttgact cacagctgga agttagaaaa gcctcgattt 1000
 catctttgga gaggccaaat ggtcttagcc tcagtctctg tctctaaata 1050
 ttccaccata aaacagctga gttatttatg aattagaggc tatagctcac 1100
 attttcaatc ctctatttct ttttttaaat ataactttct actctgatga 1150

gagaatgtgg ttttaatctc tctctcacat tttgatgatt tagacagact 1200
ccccctcttc ctcttagtca ataaacccat tgatgatcta tttcccagct 1250
tatccccaag aaaacttttg aaaggaaaga gtagacccaa agatgttatt 1300
ttctgctggt tgaattttgt ctccccaccc ccaacttggc tagtaataaa 1350
cacttactga agaagaagca ataagagaaa gatatttgta atctctccag 1400
cccatgatct cgggttttctt acactgtgat cttaaaagtt accaaaccaa 1450
agtcattttc agtttgaggc aaccaaacct ttctactgct gttgacatct 1500
tcttattaca gcaacacccat tctaggagtt tcctgagctc tccactggag 1550
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atTTTTTTTta atttaagtcc taaatatagt taaaataaat aatgttttag 1650
taaaatgata cactatctct gtgaaatagc ctcacccta catgtggata 1700
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agcactttgg gaggctgagg aggaaggatc acttgagccc agaagttcga 1850
gactagcctg ggcaacatgg agaagccctg tctctacaaa atacagagag 1900
aaaaaatcag ccagtcatgg tggcatacac ctgtagtccc agcattccgg 1950
gaggctgagg tgggaggatc acttgagccc agggaggttg gggctgcagt 2000
gagccatgat cacaccactg cactccagcc aggtgacata gcgagatcct 2050
gtctaaaaaa ataaaaaata aataatggaa cacagcaagt cctaggaagt 2100
aggttaaaac taattcttta a 2121

<210> 118
<211> 261
<212> PRT
<213> Homo Sapien

<400> 118
Met Ser Thr Thr Thr Cys Gln Val Val Ala Phe Leu Leu Ser Ile
1 5 10 15
Leu Gly Leu Ala Gly Cys Ile Ala Ala Thr Gly Met Asp Met Trp
20 25 30
Ser Thr Gln Asp Leu Tyr Asp Asn Pro Val Thr Ser Val Phe Gln
35 40 45
Tyr Glu Gly Leu Trp Arg Ser Cys Val Arg Gln Ser Ser Gly Phe
50 55 60
Thr Glu Cys Arg Pro Tyr Phe Thr Ile Leu Gly Leu Pro Ala Met
65 70 75
Leu Gln Ala Val Arg Ala Leu Met Ile Val Gly Ile Val Leu Gly
80 85 90

Ala	Ile	Gly	Leu	Leu	Val	Ser	Ile	Phe	Ala	Leu	Lys	Cys	Ile	Arg	
				95					100					105	
Ile	Gly	Ser	Met	Glu	Asp	Ser	Ala	Lys	Ala	Asn	Met	Thr	Leu	Thr	
				110					115					120	
Ser	Gly	Ile	Met	Phe	Ile	Val	Ser	Gly	Leu	Cys	Ala	Ile	Ala	Gly	
				125					130					135	
Val	Ser	Val	Phe	Ala	Asn	Met	Leu	Val	Thr	Asn	Phe	Trp	Met	Ser	
				140					145					150	
Thr	Ala	Asn	Met	Tyr	Thr	Gly	Met	Gly	Gly	Met	Val	Gln	Thr	Val	
				155					160					165	
Gln	Thr	Arg	Tyr	Thr	Phe	Gly	Ala	Ala	Leu	Phe	Val	Gly	Trp	Val	
				170					175					180	
Ala	Gly	Gly	Leu	Thr	Leu	Ile	Gly	Gly	Val	Met	Met	Cys	Ile	Ala	
				185					190					195	
Cys	Arg	Gly	Leu	Ala	Pro	Glu	Glu	Thr	Asn	Tyr	Lys	Ala	Val	Ser	
				200					205					210	
Tyr	His	Ala	Ser	Gly	His	Ser	Val	Ala	Tyr	Lys	Pro	Gly	Gly	Phe	
				215					220					225	
Lys	Ala	Ser	Thr	Gly	Phe	Gly	Ser	Asn	Thr	Lys	Asn	Lys	Lys	Ile	
				230					235					240	
Tyr	Asp	Gly	Gly	Ala	Arg	Thr	Glu	Asp	Glu	Val	Gln	Ser	Tyr	Pro	
				245					250					255	
Ser	Lys	His	Asp	Tyr	Val										
				260											

<210> 119
 <211> 2010
 <212> DNA
 <213> Homo Sapien

<400> 119
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 gtagcagttc cggagtccag ctggctaaaa ctcatcccag aggataatgg 100
 caacccatgc cttagaaatc gctgggctgt ttcttggtgg tgttggaatg 150
 gtgggcacag tggctgtcac tgtcatgcct cagtggagag tgtcggcctt 200
 cattgaaaac aacatcgtgg tttttgaaaa cttctgggaa ggactgtgga 250
 tgaattgcgt gaggcaggct aacatcagga tgcagtgcaa aatctatgat 300
 tccctgctgg ctctttctcc ggacctacag gcagccagag gactgatgtg 350
 tgctgcttcc gtgatgtcct tcttggtttt catgatggcc atccttggca 400
 tgaaatgcac caggtgcacg ggggacaatg agaaggtgaa ggctcacatt 450
 ctgctgacgg ctggaatcat cttcatcatc acgggcatgg tgggtgctcat 500
 ccctgtgagc tgggttgcca atgcatcatc cagagatttc tataactcaa 550

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tagtgaatgt tgcccaaaaa cgtgagcttg gagaagctct ctacttagga 600
tggaccacgg cactggtgct gattgttggg ggagctctgt tctgctgcgt 650
tttttgttgc aacgaaaaga gcagtagcta cagatactcg ataccttccc 700
atcgcacaac ccaaaaaagt tatcacaccg gaaagaagtc accgagcgtc 750
tactccagaa gtcagtatgt gtagttgtgt atgttttttt aactttacta 800
taaagccatg caaatgacaa aaatctatat tactttctca aaatggaccc 850
caaagaaact ttgatttact gttcttaact gcctaactct aattacagga 900
actgtgcac agctatttat gattctataa gctatttcag cagaatgaga 950
tattaaaccc aatgctttga ttgttctaga aagtatagta atttgttttc 1000
taagggtggt caagcatcta ctctttttat catttacttc aaaatgacat 1050
tgctaaagac tgcattatth tactactgta atttctccac gacatagcat 1100
tatgtacata gatgagtgta acatttatat ctacataga gacatgctta 1150
tatggtttta tttaaaatga aatgccagtc cattacactg aataaataga 1200
actcaactat tgcttttcag ggaaatcatg gatagggttg aagaagggtta 1250
ctattaattg tttaaaaaca gcttagggat taatgtcctc catttataat 1300
gaagattaaa atgaaggctt taatcagcat tgtaaaggaa attgaatggc 1350
tttctgatat gctgtttttt agcctaggag ttagaaatcc taacttcttt 1400
atcctcttct cccagaggct ttttttttct tgtgtattaa attaacattt 1450
ttaaaacgca gatattttgt caaggggctt tgcattcaaa ctgcttttcc 1500
agggctatac tcagaagaaa gataaaaagt tgatctaaga aaaagtgatg 1550
gttttaggaa agtgaaaata tttttgtttt tgtatttgaa gaagaatgat 1600
gcattttgac aagaaatcat atatgtatgg atatatttta ataagtattt 1650
gagtacagac tttgagggtt catcaatata aataaaagag cagaaaaata 1700
tgtcttggtt ttcatttgct taccaaaaaa acaacaaca aaaaagttgt 1750
cctttgagaa cttcacctgc tcctatgtgg gtacctgagt caaaattgtc 1800
atttttgttc tgtgaaaaat aaatttcctt cttgtaccat ttctgttttag 1850
ttttactaaa atctgtaa atctgtatttt tctgtttatt ccaaatttga 1900
tgaaactgac aatccaattt gaaagtgtgt gtcgacgtct gtctagctta 1950
aatgaatgtg ttctatttgc tttatacatt tatattaata aattgtacat 2000
ttttctaatt 2010

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<210> 120
<211> 225
<212> PRT

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<213> Homo Sapien

<400> 120

Met	Ala	Thr	His	Ala	Leu	Glu	Ile	Ala	Gly	Leu	Phe	Leu	Gly	Gly	
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Val	Gly	Met	Val	Gly	Thr	Val	Ala	Val	Thr	Val	Met	Pro	Gln	Trp	
				20					25					30	
Arg	Val	Ser	Ala	Phe	Ile	Glu	Asn	Asn	Ile	Val	Val	Phe	Glu	Asn	
				35					40					45	
Phe	Trp	Glu	Gly	Leu	Trp	Met	Asn	Cys	Val	Arg	Gln	Ala	Asn	Ile	
				50					55					60	
Arg	Met	Gln	Cys	Lys	Ile	Tyr	Asp	Ser	Leu	Leu	Ala	Leu	Ser	Pro	
				65					70					75	
Asp	Leu	Gln	Ala	Ala	Arg	Gly	Leu	Met	Cys	Ala	Ala	Ser	Val	Met	
				80					85					90	
Ser	Phe	Leu	Ala	Phe	Met	Met	Ala	Ile	Leu	Gly	Met	Lys	Cys	Thr	
				95					100					105	
Arg	Cys	Thr	Gly	Asp	Asn	Glu	Lys	Val	Lys	Ala	His	Ile	Leu	Leu	
				110					115					120	
Thr	Ala	Gly	Ile	Ile	Phe	Ile	Ile	Thr	Gly	Met	Val	Val	Leu	Ile	
				125					130					135	
Pro	Val	Ser	Trp	Val	Ala	Asn	Ala	Ile	Ile	Arg	Asp	Phe	Tyr	Asn	
				140					145					150	
Ser	Ile	Val	Asn	Val	Ala	Gln	Lys	Arg	Glu	Leu	Gly	Glu	Ala	Leu	
				155					160					165	
Tyr	Leu	Gly	Trp	Thr	Thr	Ala	Leu	Val	Leu	Ile	Val	Gly	Gly	Ala	
				170					175					180	
Leu	Phe	Cys	Cys	Val	Phe	Cys	Cys	Asn	Glu	Lys	Ser	Ser	Ser	Tyr	
				185					190					195	
Arg	Tyr	Ser	Ile	Pro	Ser	His	Arg	Thr	Thr	Gln	Lys	Ser	Tyr	His	
				200					205					210	
Thr	Gly	Lys	Lys	Ser	Pro	Ser	Val	Tyr	Ser	Arg	Ser	Gln	Tyr	Val	
				215					220					225	

<210> 121

<211> 1257

<212> DNA

<213> Homo Sapien

<400> 121

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ccgcctccag ctccgcgctg cccggcagcc gggagccatg cgaccccagg 150
gccccgcgcg ctccccgcag cggtccgcg gcctcctgct gctcctgctg 200
ctgcagctgc ccgcgcgcgc gagcgcctct gagatcccca aggggaagca 250

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aaaggcgcag ctccggcaga gggaggtggt ggacctgtat aatggaatgt 300
gcttacaagg gccagcagga gtgcctggtc gagacgggag ccctggggcc 350
aatgttattc cgggtacacc tgggatccca ggtcgggatg gattcaaagg 400
agaaaagggg gaatgtctga gggaaagctt tgaggagtcc tggacacca 450
actacaagca gtgttcattg agttcattga attatggcat agatcttggg 500
aaaattgcgg agtgtacatt tacaaagatg cgttcaaata gtgctctaag 550
agttttgttc agtggctcac ttcggctaaa atgcagaaat gcatgctgtc 600
agcgttggtt tttcacattc aatggagctg aatgttcagg acctcttccc 650
attgaagcta taattttatt ggaccaagga agccctgaaa tgaattcaac 700
aattaatatt catcgcaactt cttctgtgga aggactttgt gaaggaattg 750
gtgctggatt agtggatggt gctatctggg ttggcacttg ttcagattac 800
ccaaaaggag atgcttctac tggatggaat tcagtttctc gcatcattat 850
tgaagaacta ccaaaataaa tgctttaatt ttcatttgct acctcttttt 900
ttattatgcc ttggaatggt tcacttaaata gacattttaa ataagtttat 950
gtatacatct gaatgaaaag caaagctaaa tatgtttaca gaccaaagtg 1000
tgatttcaca ctgtttttta atctagcatt attcattttg cttcaatcaa 1050
aagtggtttc aatatttttt ttagttggtt agaatacttt cttcatagtc 1100
acattctctc aacctataat ttggaatatt gttgtggtct tttgtttttt 1150
ctcttagtat agcattttta aaaaaatata aaagctacca atctttgtac 1200
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<210> 122
<211> 243
<212> PRT
<213> Homo Sapien

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<400> 122
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Leu Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala
          20          25          30
Ser Glu Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg
          35          40          45
Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala
          50          55          60
Gly Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Val Ile Pro
          65          70          75

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Gly	Thr	Pro	Gly	Ile	Pro	Gly	Arg	Asp	Gly	Phe	Lys	Gly	Glu	Lys	
				80					85					90	
Gly	Glu	Cys	Leu	Arg	Glu	Ser	Phe	Glu	Glu	Ser	Trp	Thr	Pro	Asn	
				95					100					105	
Tyr	Lys	Gln	Cys	Ser	Trp	Ser	Ser	Leu	Asn	Tyr	Gly	Ile	Asp	Leu	
				110					115					120	
Gly	Lys	Ile	Ala	Glu	Cys	Thr	Phe	Thr	Lys	Met	Arg	Ser	Asn	Ser	
				125					130					135	
Ala	Leu	Arg	Val	Leu	Phe	Ser	Gly	Ser	Leu	Arg	Leu	Lys	Cys	Arg	
				140					145					150	
Asn	Ala	Cys	Cys	Gln	Arg	Trp	Tyr	Phe	Thr	Phe	Asn	Gly	Ala	Glu	
				155					160					165	
Cys	Ser	Gly	Pro	Leu	Pro	Ile	Glu	Ala	Ile	Ile	Tyr	Leu	Asp	Gln	
				170					175					180	
Gly	Ser	Pro	Glu	Met	Asn	Ser	Thr	Ile	Asn	Ile	His	Arg	Thr	Ser	
				185					190					195	
Ser	Val	Glu	Gly	Leu	Cys	Glu	Gly	Ile	Gly	Ala	Gly	Leu	Val	Asp	
				200					205					210	
Val	Ala	Ile	Trp	Val	Gly	Thr	Cys	Ser	Asp	Tyr	Pro	Lys	Gly	Asp	
				215					220					225	
Ala	Ser	Thr	Gly	Trp	Asn	Ser	Val	Ser	Arg	Ile	Ile	Ile	Glu	Glu	
				230					235					240	

Leu Pro Lys

<210> 123
 <211> 2379
 <212> DNA
 <213> Homo Sapien

<400> 123
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 agctctgtgg ctgaactggg tgctcatcac gggaactgct gggctatgga 100
 atacagatgt ggcagctcag gtagcccaa attgcctgga agaatacatc 150
 atgtttttcg ataagaagaa attgtaggat ccagtttttt ttttaaccgc 200
 cccctcccca cccccaaaa aaactgtaaa gatgcaaaaa cgtaatatcc 250
 atgaagatcc tattacctag gaagattttg atgttttgct gcgaatgcgg 300
 tgttgggatt tatttgttct tggagtgttc tgcgtggctg gcaaagaata 350
 atgttccaaa atcgggtccat ctcccaaggg gtccaatttt tcttcctggg 400
 tgtcagcgag ccctgactca ctacagtgc gctgacagg gctgtcatgc 450
 aactggcccc taagccaaag caaaagacct aaggacgacc tttgaacaat 500
 acaaaggatg ggtttcaatg taattaggct actgagcgga tcagctgtag 550

cactgggttat agccccact gtcttactga caatgctttc ttctgccgaa 600
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 atctcagaaa ttacaggaga taccctcaag tatactgct ggttgcttag 700
 gtttgtccct tcgctataac agccttcaaa aacttaagta taatcaattt 750
 aaagggtca accagctcac ctggctatac cttgaccata accatatcag 800
 caatattgac gaaaatgctt ttaatggaat acgcagactc aaagagctga 850
 ttcttagttc caatagaatc tcctattttc ttaacaatac cttcagacct 900
 gtgacaaatt tacggaactt ggatctgtcc tataatcagc tgcattctct 950
 gggatctgaa cagtttcggg gcttgcgga gctgctgagt ttacatttac 1000
 ggtctaactc cctgagaacc atccctgtgc gaatattcca agactgccgc 1050
 aacctggaac ttttggaact gggatataac cggatccgaa gtttagccag 1100
 gaatgtcttt gctggcatga tcagactcaa agaacttcac ctggagcaca 1150
 atcaattttc caagctcaac ctggcccttt ttccaagggt ggtcagcctt 1200
 cagaaccttt acttgcagtg gaataaaatc agtgtcatag gacagaccat 1250
 gtcttgacc tggagctcct tacaaaggct tgatttatca ggcaatgaga 1300
 tcgaagcttt cagtggacc agtggtttcc agtgtgtccc gaatctgcag 1350
 cgcctcaacc tggattccaa caagctcaca ttatttggtc aagagatttt 1400
 ggattcttgg atatccctca atgacatcag tcttgctggg aatatatggg 1450
 aatgcagcag aaatatgtgc tcccttgtaa actggctgaa aagttttaaa 1500
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 gattataaac ccaccaacac ggagaccagc gagatgctgc tgaatgggac 2000
 gggaccctgc acctataaca aatcgggctc caggagtgat gaggtatgaa 2050
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<210> 124
<211> 513
<212> PRT
<213> Homo Sapien

<400> 124
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Leu Val Ile Ala Pro Thr Val Leu Leu Thr Met Leu Ser Ser Ala
20 25 30
Glu Arg Gly Cys Pro Lys Gly Cys Arg Cys Glu Gly Lys Met Val
35 40 45
Tyr Cys Glu Ser Gln Lys Leu Gln Glu Ile Pro Ser Ser Ile Ser
50 55 60
Ala Gly Cys Leu Gly Leu Ser Leu Arg Tyr Asn Ser Leu Gln Lys
65 70 75
Leu Lys Tyr Asn Gln Phe Lys Gly Leu Asn Gln Leu Thr Trp Leu
80 85 90
Tyr Leu Asp His Asn His Ile Ser Asn Ile Asp Glu Asn Ala Phe
95 100 105
Asn Gly Ile Arg Arg Leu Lys Glu Leu Ile Leu Ser Ser Asn Arg
110 115 120
Ile Ser Tyr Phe Leu Asn Asn Thr Phe Arg Pro Val Thr Asn Leu
125 130 135
Arg Asn Leu Asp Leu Ser Tyr Asn Gln Leu His Ser Leu Gly Ser
140 145 150
Glu Gln Phe Arg Gly Leu Arg Lys Leu Leu Ser Leu His Leu Arg
155 160 165
Ser Asn Ser Leu Arg Thr Ile Pro Val Arg Ile Phe Gln Asp Cys
170 175 180
Arg Asn Leu Glu Leu Leu Asp Leu Gly Tyr Asn Arg Ile Arg Ser
185 190 195
Leu Ala Arg Asn Val Phe Ala Gly Met Ile Arg Leu Lys Glu Leu
200 205 210
His Leu Glu His Asn Gln Phe Ser Lys Leu Asn Leu Ala Leu Phe
215 220 225
Pro Arg Leu Val Ser Leu Gln Asn Leu Tyr Leu Gln Trp Asn Lys
230 235 240

Ile	Ser	Val	Ile	Gly	Gln	Thr	Met	Ser	Trp	Thr	Trp	Ser	Ser	Leu	245	250	255
Gln	Arg	Leu	Asp	Leu	Ser	Gly	Asn	Glu	Ile	Glu	Ala	Phe	Ser	Gly	260	265	270
Pro	Ser	Val	Phe	Gln	Cys	Val	Pro	Asn	Leu	Gln	Arg	Leu	Asn	Leu	275	280	285
Asp	Ser	Asn	Lys	Leu	Thr	Phe	Ile	Gly	Gln	Glu	Ile	Leu	Asp	Ser	290	295	300
Trp	Ile	Ser	Leu	Asn	Asp	Ile	Ser	Leu	Ala	Gly	Asn	Ile	Trp	Glu	305	310	315
Cys	Ser	Arg	Asn	Ile	Cys	Ser	Leu	Val	Asn	Trp	Leu	Lys	Ser	Phe	320	325	330
Lys	Gly	Leu	Arg	Glu	Asn	Thr	Ile	Ile	Cys	Ala	Ser	Pro	Lys	Glu	335	340	345
Leu	Gln	Gly	Val	Asn	Val	Ile	Asp	Ala	Val	Lys	Asn	Tyr	Ser	Ile	350	355	360
Cys	Gly	Lys	Ser	Thr	Thr	Glu	Arg	Phe	Asp	Leu	Ala	Arg	Ala	Leu	365	370	375
Pro	Lys	Pro	Thr	Phe	Lys	Pro	Lys	Leu	Pro	Arg	Pro	Lys	His	Glu	380	385	390
Ser	Lys	Pro	Pro	Leu	Pro	Pro	Thr	Val	Gly	Ala	Thr	Glu	Pro	Gly	395	400	405
Pro	Glu	Thr	Asp	Ala	Asp	Ala	Glu	His	Ile	Ser	Phe	His	Lys	Ile	410	415	420
Ile	Ala	Gly	Ser	Val	Ala	Leu	Phe	Leu	Ser	Val	Leu	Val	Ile	Leu	425	430	435
Leu	Val	Ile	Tyr	Val	Ser	Trp	Lys	Arg	Tyr	Pro	Ala	Ser	Met	Lys	440	445	450
Gln	Leu	Gln	Gln	Arg	Ser	Leu	Met	Arg	Arg	His	Arg	Lys	Lys	Lys	455	460	465
Arg	Gln	Ser	Leu	Lys	Gln	Met	Thr	Pro	Ser	Thr	Gln	Glu	Phe	Tyr	470	475	480
Val	Asp	Tyr	Lys	Pro	Thr	Asn	Thr	Glu	Thr	Ser	Glu	Met	Leu	Leu	485	490	495
Asn	Gly	Thr	Gly	Pro	Cys	Thr	Tyr	Asn	Lys	Ser	Gly	Ser	Arg	Glu	500	505	510

Cys Glu Val

<210> 125
 <211> 998
 <212> DNA
 <213> Homo Sapien

<400> 125

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 aggcttttgc cgctgacca gagatggccc cgagcgagca aattcctact 100
 gtccggctgc gcggtaccg tggccgagct agcaaccttt cccctggatc 150
 tcacaaaaac tcgactccaa atgcaaggag aagcagctct tgctcggttg 200
 ggagacggtg caagagaatc tgccccctat aggggaatgg tgcgacacagc 250
 cctagggatc attgaagagg aaggctttct aaagctttgg caaggagtga 300
 caccgcgat ttacagacac gtagtgtatt ctggaggtcg aatggtcaca 350
 tatgaacatc tccgagaggt tgtgtttggc aaaagtgaag atgagcatta 400
 tcccccttgg aaatcagtca ttggagggat gatggctggg gttattggcc 450
 agtttttagc caatccaact gacctagtga aggttcagat gcaaattggaa 500
 ggaaaaagga aactggaagg aaaaccattg cgatttcgtg gtgtacatca 550
 tgcatttgca aaaatcttag ctgaaggagg aatacgaggg ctttgggcag 600
 gctgggtacc caatatacaa agagcagcac tggatgaat gggagattta 650
 accacttatg atacagtga acactacttg gtattgaata caccacttga 700
 ggacaatatc atgactcacg gtttatcaag tttatgttct ggactggtag 750
 cttctattct gggaacacca gccgatgtca tcaaaagcag aataatgaat 800
 caaccacgag ataaacaagg aaggggactt ttgtataaat catcgactga 850
 ctgcttgatt caggctgttc aaggtgaagg attcatgagt ctatataaag 900
 gctttttacc atcttggctg agaatgaccc cttggtcaat ggtgttctgg 950
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<210> 126
 <211> 323
 <212> PRT
 <213> Homo Sapien

<400> 126
 Met Ser Val Pro Glu Glu Glu Glu Arg Leu Leu Pro Leu Thr Gln
 1 5 10 15
 Arg Trp Pro Arg Ala Ser Lys Phe Leu Leu Ser Gly Cys Ala Ala
 20 25 30
 Thr Val Ala Glu Leu Ala Thr Phe Pro Leu Asp Leu Thr Lys Thr
 35 40 45
 Arg Leu Gln Met Gln Gly Glu Ala Ala Leu Ala Arg Leu Gly Asp
 50 55 60
 Gly Ala Arg Glu Ser Ala Pro Tyr Arg Gly Met Val Arg Thr Ala
 65 70 75
 Leu Gly Ile Ile Glu Glu Glu Gly Phe Leu Lys Leu Trp Gln Gly
 80 85 90

Val	Thr	Pro	Ala	Ile	Tyr	Arg	His	Val	Val	Tyr	Ser	Gly	Gly	Arg	95	100	105
Met	Val	Thr	Tyr	Glu	His	Leu	Arg	Glu	Val	Val	Phe	Gly	Lys	Ser	110	115	120
Glu	Asp	Glu	His	Tyr	Pro	Leu	Trp	Lys	Ser	Val	Ile	Gly	Gly	Met	125	130	135
Met	Ala	Gly	Val	Ile	Gly	Gln	Phe	Leu	Ala	Asn	Pro	Thr	Asp	Leu	140	145	150
Val	Lys	Val	Gln	Met	Gln	Met	Glu	Gly	Lys	Arg	Lys	Leu	Glu	Gly	155	160	165
Lys	Pro	Leu	Arg	Phe	Arg	Gly	Val	His	His	Ala	Phe	Ala	Lys	Ile	170	175	180
Leu	Ala	Glu	Gly	Gly	Ile	Arg	Gly	Leu	Trp	Ala	Gly	Trp	Val	Pro	185	190	195
Asn	Ile	Gln	Arg	Ala	Ala	Leu	Val	Asn	Met	Gly	Asp	Leu	Thr	Thr	200	205	210
Tyr	Asp	Thr	Val	Lys	His	Tyr	Leu	Val	Leu	Asn	Thr	Pro	Leu	Glu	215	220	225
Asp	Asn	Ile	Met	Thr	His	Gly	Leu	Ser	Ser	Leu	Cys	Ser	Gly	Leu	230	235	240
Val	Ala	Ser	Ile	Leu	Gly	Thr	Pro	Ala	Asp	Val	Ile	Lys	Ser	Arg	245	250	255
Ile	Met	Asn	Gln	Pro	Arg	Asp	Lys	Gln	Gly	Arg	Gly	Leu	Leu	Tyr	260	265	270
Lys	Ser	Ser	Thr	Asp	Cys	Leu	Ile	Gln	Ala	Val	Gln	Gly	Glu	Gly	275	280	285
Phe	Met	Ser	Leu	Tyr	Lys	Gly	Phe	Leu	Pro	Ser	Trp	Leu	Arg	Met	290	295	300
Thr	Pro	Trp	Ser	Met	Val	Phe	Trp	Leu	Thr	Tyr	Glu	Lys	Ile	Arg	305	310	315
Glu	Met	Ser	Gly	Val	Ser	Pro	Phe								320		

<210> 127
 <211> 1505
 <212> DNA
 <213> Homo Sapien

<400> 127
 cgcgatcgg acccaagcag gtcggcggcg gcggcaggag agcggccggg 50
 cgtcagctcc tcgacccccg tgcggggcta gtccagcgag gcggacgggc 100
 ggcgtgggccc catggccagg cccggcatgg agcgggtggcg cgaccggctg 150
 gcgctggtga cgggggcctc ggggggcatc ggcgcgggcg tggcccgggc 200
 cctggtccag cagggactga aggtggtggg ctgcgcccgc actgtgggca 250

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acatcgagga gctggctgct gaatgtaaga gtgcaggcta ccccgaggact 300
ttgatccctt acagatgtga cctatcaaat gaagaggaca tcctctccat 350
gttctcagct atccgttctc agcacagcgg tgtagacatc tgcatacaaca 400
atgctggctt ggccccggcct gacaccctgc tctcaggcag caccagtggg 450
tggaaggaca tgttcaatgt gaacgtgctg gccctcagca tctgcacacg 500
ggaagcctac cagtccatga aggagcggaa tgtggacgat gggcacatca 550
ttaacatcaa tagcatgtct ggccaccgag tgttaccctt gtctgtgacc 600
cacttctata gtgccaccaa gtatgccgtc actgcgctga cagagggact 650
gaggcaagag cttcggggagg ccagaccca catccgagcc acgtgcatct 700
ctccaggtgt ggtggagaca caattcgctt tcaaactcca cgacaaggac 750
cctgagaagg cagctgccac ctatgagcaa atgaagtgtc tcaaaccgca 800
ggatgtggcc gaggtgtgta tctacgtcct cagcaccctc gcacacatcc 850
agattggaga catccagatg aggccacgg agcagggtgac ctagtgactg 900
tgggagctcc tccttccctc cccacccttc atggcttgcc tcctgctct 950
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ccccgaccag gggctagaaa atttgtttga gatttttata tcattctgtc 1050
aaattgcttc agttgtaaat gtgaaaaatg ggctggggaa aggaggtggg 1100
gtccctaatt gttttacttg ttaacttggt cttgtgcccc tgggcacttg 1150
gcctttgtct gctctcagtg tcttcccttt gacatgggaa aggagttgtg 1200
gccaaaatcc ccatcttctt gcacctcaac gtctgtggct cagggtggg 1250
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agacttctc ctctgctgc cccactgcac cctctcccc ttatctatct 1350
ccttctcggc tccccagccc agtcttggct tcttgtcccc tcctgggggtc 1400
atccctccac tctgactctg actatggcag cagaacacca gggcctggcc 1450
cagtggattt catggtgatc attaaaaaag aaaaatcgca accaaaaaaa 1500
aaaaa 1505

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<210> 128
<211> 260
<212> PRT
<213> Homo Sapien

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<400> 128
Met Ala Arg Pro Gly Met Glu Arg Trp Arg Asp Arg Leu Ala Leu
  1           5           10          15
Val Thr Gly Ala Ser Gly Gly Ile Gly Ala Ala Val Ala Arg Ala
          20          25          30

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Leu	Val	Gln	Gln	Gly	Leu	Lys	Val	Val	Gly	Cys	Ala	Arg	Thr	Val	
				35					40					45	
Gly	Asn	Ile	Glu	Glu	Leu	Ala	Ala	Glu	Cys	Lys	Ser	Ala	Gly	Tyr	
				50					55					60	
Pro	Gly	Thr	Leu	Ile	Pro	Tyr	Arg	Cys	Asp	Leu	Ser	Asn	Glu	Glu	
				65					70					75	
Asp	Ile	Leu	Ser	Met	Phe	Ser	Ala	Ile	Arg	Ser	Gln	His	Ser	Gly	
				80					85					90	
Val	Asp	Ile	Cys	Ile	Asn	Asn	Ala	Gly	Leu	Ala	Arg	Pro	Asp	Thr	
				95					100					105	
Leu	Leu	Ser	Gly	Ser	Thr	Ser	Gly	Trp	Lys	Asp	Met	Phe	Asn	Val	
				110					115					120	
Asn	Val	Leu	Ala	Leu	Ser	Ile	Cys	Thr	Arg	Glu	Ala	Tyr	Gln	Ser	
				125					130					135	
Met	Lys	Glu	Arg	Asn	Val	Asp	Asp	Gly	His	Ile	Ile	Asn	Ile	Asn	
				140					145					150	
Ser	Met	Ser	Gly	His	Arg	Val	Leu	Pro	Leu	Ser	Val	Thr	His	Phe	
				155					160					165	
Tyr	Ser	Ala	Thr	Lys	Tyr	Ala	Val	Thr	Ala	Leu	Thr	Glu	Gly	Leu	
				170					175					180	
Arg	Gln	Glu	Leu	Arg	Glu	Ala	Gln	Thr	His	Ile	Arg	Ala	Thr	Cys	
				185					190					195	
Ile	Ser	Pro	Gly	Val	Val	Glu	Thr	Gln	Phe	Ala	Phe	Lys	Leu	His	
				200					205					210	
Asp	Lys	Asp	Pro	Glu	Lys	Ala	Ala	Ala	Thr	Tyr	Glu	Gln	Met	Lys	
				215					220					225	
Cys	Leu	Lys	Pro	Glu	Asp	Val	Ala	Glu	Ala	Val	Ile	Tyr	Val	Leu	
				230					235					240	
Ser	Thr	Pro	Ala	His	Ile	Gln	Ile	Gly	Asp	Ile	Gln	Met	Arg	Pro	
				245					250					255	
Thr	Glu	Gln	Val	Thr											
				260											

<210> 129
 <211> 1177
 <212> DNA
 <213> Homo Sapien

<400> 129
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 tcagggtgcag agtctcagtt gcccgaggag acctcccctc ccgaggcagt 150
 ctgctcagag ggctcggcc cagaattcca gttctggttt catgccagcc 200
 tgtaaaaggc catggaactt tgggtgaatc accgatgcca tttaagaggg 250

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ttttctgcca ggatggaaat gtaggtcgt tctgtgtctg cgctgttcat 300
ttcagtagcc accagccacc tgtggccgtt gagtgttga aatgaggaac 350
tgagaaaatt aattttctcat gtatttttct catttattta ttaattttta 400
actgatagtt gtacatatatt gggggtacat gtgatatttg gatacatgta 450
tacaatatat aatgatcaaa tcagggtaac tgggatatcc atcacatcaa 500
acatttattt tttattcttt ttagacagag tctcactctg tcacccaggc 550
tggagtgcag tgggtgccatc tcagcttact gcaacctctg cctgccaggt 600
tcaagcgatt ctcatgcctc cacctcccaa gtagctggga ctacaggcat 650
gcaccacaat gcccaactaa tttttgtatt tttagtagag acgggggtttt 700
gccatgttgc ccaggctggc cttgaactcc tggcctcaaa caatccactt 750
gcctcggcct cccaaagtgt tatgattaca ggcgtgagcc accgtgcctg 800
gcctaaacat ttatcttttc tttgtgttgg gaactttgaa attatacaat 850
gaattattgt taactgtcat ctccctgctg tgctatggaa cactgggact 900
tcttcctct atctaactgt atatttgtac cagttaacca accgtacttc 950
atccccactc ctctctatcc ttcccaacct ctgatcacct cattctactc 1000
tctacctcca tgagatccac ttttttagct ccacatgtg agtaagaaaa 1050
tgcaatattt gtctttctgt gcctggctta tttcacttaa cataatgact 1100
tcctgttcca tccatgttgc tgcaaatgac aggatttcgt tcttaatttc 1150
aattaaaata accacacatg gcaaaaaa 1177

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<210> 130
<211> 111
<212> PRT
<213> Homo Sapien

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<400> 130
Met Gly Leu Leu Leu Val Leu Phe Leu Ser Leu Leu Pro Val
  1             5             10             15
Ala Tyr Thr Ile Met Ser Leu Pro Pro Ser Phe Asp Cys Gly Pro
             20             25             30
Phe Arg Cys Arg Val Ser Val Ala Arg Glu His Leu Pro Ser Arg
             35             40             45
Gly Ser Leu Leu Arg Gly Pro Arg Pro Arg Ile Pro Val Leu Val
             50             55             60
Ser Cys Gln Pro Val Lys Gly His Gly Thr Leu Gly Glu Ser Pro
             65             70             75
Met Pro Phe Lys Arg Val Phe Cys Gln Asp Gly Asn Val Arg Ser
             80             85             90
Phe Cys Val Cys Ala Val His Phe Ser Ser His Gln Pro Pro Val

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Ala Val Glu Cys Leu Lys
110

<210> 131

<211> 2061

<212> DNA

<213> Homo Sapien

<400> 131

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gttccttcaa gtagcacctc tatcagttat ggctaaatcc tgtccatctg 150
tgtgtcgctg cgatgcgggt ttcatttact gtaatgatcg ctttctgaca 200
tccattccaa caggaatacc agaggatgct acaactctct accttcagaa 250
caaccaaata aataatgctg ggattccttc agatttgaaa aacttgctga 300
aagtagaaaag aatataccta taccacaaca gtttagatga atttcctacc 350
aacctcccaa agtatgtaaa agagttacat ttgcaagaaa ataacataag 400
gactatcact tatgattcac tttcaaaaat tccctatctg gaagaattac 450
atttagatga caactctgtc tctgcagtta gcatagaaga gggagcattc 500
cgagacagca actatctccg actgcttttc ctgtcccgta atcaccttag 550
cacaattccc tgggggtttgc ccaggactat agaagaacta cgcttggatg 600
ataatcgcat atccactatt tcatcaccat ctcttcaagg tctcactagt 650
ctaaaacgcc tggttctaga tggaaacctg ttgaacaatc atgggttagg 700
tgacaaagtt ttcttcaacc tagttaattt gacagagctg tccctgggtgc 750
ggaattccct gactgctgca ccagtaaacc ttccaggcac aaacctgagg 800
aagctttatc ttcaagataa ccacatcaat cgggtgcccc caaatgcttt 850
ttcttatcta aggcagctct atcgactgga tatgtccaat aataacctaa 900
gtaatttacc tcagggtatc tttgatgatt tggacaatat aacacaactg 950
attcttcgca acaatccctg gtattgcggg tgcaagatga aatgggtacg 1000
tgactggtta caatcactac ctgtgaaggt caacgtgcgt gggctcatgt 1050
gccaagcccc agaaaagggt cgtgggatgg ctattaagga tctcaatgca 1100
gaactgtttg attgtaagga cagtgggatt gtaagcacca ttcagataac 1150
cactgcaata cccaacacag tgtatcctgc ccaaggacag tggccagctc 1200
cagtgaccaa acagccagat attaagaacc ccaagctcac taaggatcaa 1250
caaaccacag ggagtccttc aagaaaaaca attacaatta ctgtgaagtc 1300

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tgtcacctct gataccattc atatctcttg gaaacttgct ctacctatga 1350
 ctgcttttgag actcagctgg cttaaactgg gccatagccc ggcatttgga 1400
 tctataacag aaacaattgt aacaggggaa cgcagtgagt acttggtcac 1450
 agccctggag cctgattcac cctataaagt atgcatgggt cccatggaaa 1500
 ccagcaacct ctacctatct gatgaaactc ctgtttgtat tgagactgaa 1550
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 agagaaagaa ccttacaaaa accccaatct acctttgggt gccatcattg 1650
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 aatgaaccca tctogaagga ggagtttgta atacacacca tatttcctcc 1900
 taatggaatg aatctgtaca aaaacaatca cagtgaaagc agtagtaacc 1950
 gaagctacag agacagtggg attccagact cagatcactc acactcatga 2000
 tgctgaagga ctcacagcag acttgtgttt tgggtttttt aaacctaagg 2050
 gaggtgatgg t 2061

<210> 132
 <211> 649
 <212> PRT
 <213> Homo Sapien

<400> 132
 Met Ile Ser Ala Ala Trp Ser Ile Phe Leu Ile Gly Thr Lys Ile
 1 5 10 15
 Gly Leu Phe Leu Gln Val Ala Pro Leu Ser Val Met Ala Lys Ser
 20 25 30
 Cys Pro Ser Val Cys Arg Cys Asp Ala Gly Phe Ile Tyr Cys Asn
 35 40 45
 Asp Arg Phe Leu Thr Ser Ile Pro Thr Gly Ile Pro Glu Asp Ala
 50 55 60
 Thr Thr Leu Tyr Leu Gln Asn Asn Gln Ile Asn Asn Ala Gly Ile
 65 70 75
 Pro Ser Asp Leu Lys Asn Leu Leu Lys Val Glu Arg Ile Tyr Leu
 80 85 90
 Tyr His Asn Ser Leu Asp Glu Phe Pro Thr Asn Leu Pro Lys Tyr
 95 100 105
 Val Lys Glu Leu His Leu Gln Glu Asn Asn Ile Arg Thr Ile Thr
 110 115 120
 Tyr Asp Ser Leu Ser Lys Ile Pro Tyr Leu Glu Glu Leu His Leu

				125					130					135
Asp	Asp	Asn	Ser	Val	Ser	Ala	Val	Ser	Ile	Glu	Glu	Gly	Ala	Phe
				140					145					150
Arg	Asp	Ser	Asn	Tyr	Leu	Arg	Leu	Leu	Phe	Leu	Ser	Arg	Asn	His
				155					160					165
Leu	Ser	Thr	Ile	Pro	Trp	Gly	Leu	Pro	Arg	Thr	Ile	Glu	Glu	Leu
				170					175					180
Arg	Leu	Asp	Asp	Asn	Arg	Ile	Ser	Thr	Ile	Ser	Ser	Pro	Ser	Leu
				185					190					195
Gln	Gly	Leu	Thr	Ser	Leu	Lys	Arg	Leu	Val	Leu	Asp	Gly	Asn	Leu
				200					205					210
Leu	Asn	Asn	His	Gly	Leu	Gly	Asp	Lys	Val	Phe	Phe	Asn	Leu	Val
				215					220					225
Asn	Leu	Thr	Glu	Leu	Ser	Leu	Val	Arg	Asn	Ser	Leu	Thr	Ala	Ala
				230					235					240
Pro	Val	Asn	Leu	Pro	Gly	Thr	Asn	Leu	Arg	Lys	Leu	Tyr	Leu	Gln
				245					250					255
Asp	Asn	His	Ile	Asn	Arg	Val	Pro	Pro	Asn	Ala	Phe	Ser	Tyr	Leu
				260					265					270
Arg	Gln	Leu	Tyr	Arg	Leu	Asp	Met	Ser	Asn	Asn	Asn	Leu	Ser	Asn
				275					280					285
Leu	Pro	Gln	Gly	Ile	Phe	Asp	Asp	Leu	Asp	Asn	Ile	Thr	Gln	Leu
				290					295					300
Ile	Leu	Arg	Asn	Asn	Pro	Trp	Tyr	Cys	Gly	Cys	Lys	Met	Lys	Trp
				305					310					315
Val	Arg	Asp	Trp	Leu	Gln	Ser	Leu	Pro	Val	Lys	Val	Asn	Val	Arg
				320					325					330
Gly	Leu	Met	Cys	Gln	Ala	Pro	Glu	Lys	Val	Arg	Gly	Met	Ala	Ile
				335					340					345
Lys	Asp	Leu	Asn	Ala	Glu	Leu	Phe	Asp	Cys	Lys	Asp	Ser	Gly	Ile
				350					355					360
Val	Ser	Thr	Ile	Gln	Ile	Thr	Thr	Ala	Ile	Pro	Asn	Thr	Val	Tyr
				365					370					375
Pro	Ala	Gln	Gly	Gln	Trp	Pro	Ala	Pro	Val	Thr	Lys	Gln	Pro	Asp
				380					385					390
Ile	Lys	Asn	Pro	Lys	Leu	Thr	Lys	Asp	Gln	Gln	Thr	Thr	Gly	Ser
				395					400					405
Pro	Ser	Arg	Lys	Thr	Ile	Thr	Ile	Thr	Val	Lys	Ser	Val	Thr	Ser
				410					415					420
Asp	Thr	Ile	His	Ile	Ser	Trp	Lys	Leu	Ala	Leu	Pro	Met	Thr	Ala
				425					430					435
Leu	Arg	Leu	Ser	Trp	Leu	Lys	Leu	Gly	His	Ser	Pro	Ala	Phe	Gly

440	445	450
Ser Ile Thr Glu Thr Ile Val Thr Gly Glu Arg Ser Glu Tyr Leu		
455	460	465
Val Thr Ala Leu Glu Pro Asp Ser Pro Tyr Lys Val Cys Met Val		
470	475	480
Pro Met Glu Thr Ser Asn Leu Tyr Leu Phe Asp Glu Thr Pro Val		
485	490	495
Cys Ile Glu Thr Glu Thr Ala Pro Leu Arg Met Tyr Asn Pro Thr		
500	505	510
Thr Thr Leu Asn Arg Glu Gln Glu Lys Glu Pro Tyr Lys Asn Pro		
515	520	525
Asn Leu Pro Leu Ala Ala Ile Ile Gly Gly Ala Val Ala Leu Val		
530	535	540
Thr Ile Ala Leu Leu Ala Leu Val Cys Trp Tyr Val His Arg Asn		
545	550	555
Gly Ser Leu Phe Ser Arg Asn Cys Ala Tyr Ser Lys Gly Arg Arg		
560	565	570
Arg Lys Asp Asp Tyr Ala Glu Ala Gly Thr Lys Lys Asp Asn Ser		
575	580	585
Ile Leu Glu Ile Arg Glu Thr Ser Phe Gln Met Leu Pro Ile Ser		
590	595	600
Asn Glu Pro Ile Ser Lys Glu Glu Phe Val Ile His Thr Ile Phe		
605	610	615
Pro Pro Asn Gly Met Asn Leu Tyr Lys Asn Asn His Ser Glu Ser		
620	625	630
Ser Ser Asn Arg Ser Tyr Arg Asp Ser Gly Ile Pro Asp Ser Asp		
635	640	645
His Ser His Ser		

<210> 133
 <211> 1882
 <212> DNA
 <213> Homo Sapien

<400> 133
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 ccaggcttct tggcagccct gccggggccac ttgtcttcat gtctgccagg 100
 gggagggtggg aaggaggtgg gaggagggcg tgcagaggca gtctgggctt 150
 ggccagagct caggggtgctg agcgtgtgac cagcagtgag cagaggccgg 200
 ccatggccag cctggggctg ctgctcctgc tcttactgac agcactgcca 250
 ccgctgtggt cctcctcact gcctgggctg gacactgctg aaagtaaagc 300
 caccattgca gacctgatcc tgtctgcgct ggagagagcc accgtcttcc 350

tagaacagag gctgcctgaa atcaacctgg atggcatggt ggggggtccga 400
gtgctggaag agcagctaaa aagtgtccgg gagaagtggg cccaggagcc 450
cctgctgcag ccgctgagcc tgcgcgtggg gatgctgggg gagaagctgg 500
aggctgccat ccagagatcc ctccactacc tcaagctgag tgatcccaag 550
tacctaagag agttccagct gaccctccag cccgggtttt ggaagctccc 600
acatgcctgg atccacactg atgcctcctt ggtgtacccc acgttcgggc 650
cccaggactc attctcagag gagagaagtg acgtgtgcct ggtgcagctg 700
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caggagcctc atgaccaagc ccggctgctc aggctactgc ctgtcccacc 800
aactgctctt cttcctctgg gccagaatga ggggatgcac acagggacca 850
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tcttcatgga aaacatcatg ttctgtggaa tgggcggctt ctccgacttc 1000
tacaagctcc ggtggctgga ggccattctc agctggcaga aacagcagga 1050
aggatgcttc ggggagcctg atgctgaaga tgaagaatta tctaaagcta 1100
ttcaatatca gcagcatttt tcgaggagag tgaagaggcg agaaaaacaa 1150
ttccagatt ctgcctctgt tgctcaggct ggagtacagt ggcgcaatct 1200
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ttttatat tttagtaga gacagggtt catcatgttg ctcatgctgg 1350
tctcgaactc ctgatctcaa gagatccgcc cacctcaggc tcccaaagtg 1400
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ggaggataag caaagccacc ccgacacca atcttggaag ccctgagtag 1800
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<210> 134

<211> 440
 <212> PRT
 <213> Homo Sapien

<400> 134

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Arg	Gly	Ser	Leu	Gly	Leu	Ala	Arg	Ala	Gln	Gly	Ala	Glu	Arg	Val	20	25	30	
Thr	Ser	Ser	Glu	Gln	Arg	Pro	Ala	Met	Ala	Ser	Leu	Gly	Leu	Leu	35	40	45	
Leu	Leu	Leu	Leu	Leu	Thr	Ala	Leu	Pro	Pro	Leu	Trp	Ser	Ser	Ser	50	55	60	
Leu	Pro	Gly	Leu	Asp	Thr	Ala	Glu	Ser	Lys	Ala	Thr	Ile	Ala	Asp	65	70	75	
Leu	Ile	Leu	Ser	Ala	Leu	Glu	Arg	Ala	Thr	Val	Phe	Leu	Glu	Gln	80	85	90	
Arg	Leu	Pro	Glu	Ile	Asn	Leu	Asp	Gly	Met	Val	Gly	Val	Arg	Val	95	100	105	
Leu	Glu	Glu	Gln	Leu	Lys	Ser	Val	Arg	Glu	Lys	Trp	Ala	Gln	Glu	110	115	120	
Pro	Leu	Leu	Gln	Pro	Leu	Ser	Leu	Arg	Val	Gly	Met	Leu	Gly	Glu	125	130	135	
Lys	Leu	Glu	Ala	Ala	Ile	Gln	Arg	Ser	Leu	His	Tyr	Leu	Lys	Leu	140	145	150	
Ser	Asp	Pro	Lys	Tyr	Leu	Arg	Glu	Phe	Gln	Leu	Thr	Leu	Gln	Pro	155	160	165	
Gly	Phe	Trp	Lys	Leu	Pro	His	Ala	Trp	Ile	His	Thr	Asp	Ala	Ser	170	175	180	
Leu	Val	Tyr	Pro	Thr	Phe	Gly	Pro	Gln	Asp	Ser	Phe	Ser	Glu	Glu	185	190	195	
Arg	Ser	Asp	Val	Cys	Leu	Val	Gln	Leu	Leu	Gly	Thr	Gly	Thr	Asp	200	205	210	
Ser	Ser	Glu	Pro	Cys	Gly	Leu	Ser	Asp	Leu	Cys	Arg	Ser	Leu	Met	215	220	225	
Thr	Lys	Pro	Gly	Cys	Ser	Gly	Tyr	Cys	Leu	Ser	His	Gln	Leu	Leu	230	235	240	
Phe	Phe	Leu	Trp	Ala	Arg	Met	Arg	Gly	Cys	Thr	Gln	Gly	Pro	Leu	245	250	255	
Gln	Gln	Ser	Gln	Asp	Tyr	Ile	Asn	Leu	Phe	Cys	Ala	Asn	Met	Met	260	265	270	
Asp	Leu	Asn	Arg	Arg	Ala	Glu	Ala	Ile	Gly	Tyr	Ala	Tyr	Pro	Thr	275	280	285	
Arg	Asp	Ile	Phe	Met	Glu	Asn	Ile	Met	Phe	Cys	Gly	Met	Gly	Gly				

	290		295		300
Phe Ser Asp Phe	Tyr Lys Leu Arg Trp	Leu Glu Ala Ile Leu Ser			
	305		310		315
Trp Gln Lys Gln	Gln Glu Gly Cys Phe	Gly Glu Pro Asp Ala Glu			
	320		325		330
Asp Glu Glu Leu	Ser Lys Ala Ile Gln	Tyr Gln Gln His Phe Ser			
	335		340		345
Arg Arg Val Lys	Arg Arg Glu Lys Gln	Phe Pro Asp Ser Arg Ser			
	350		355		360
Val Ala Gln Ala	Gly Val Gln Trp Arg	Asn Leu Gly Ser Leu Gln			
	365		370		375
Pro Leu Pro Pro	Gly Phe Lys Gln Phe	Ser Cys Leu Ile Leu Pro			
	380		385		390
Ser Ser Trp Asp	Tyr Arg Ser Val Pro	Pro Tyr Leu Ala Asn Phe			
	395		400		405
Tyr Ile Phe Leu	Val Glu Thr Gly Phe	His His Val Ala His Ala			
	410		415		420
Gly Leu Glu Leu	Leu Ile Ser Arg Asp	Pro Pro Thr Ser Gly Ser			
	425		430		435
Gln Ser Val Gly	Leu				
	440				

<210> 135
 <211> 884
 <212> DNA
 <213> Homo Sapien

<400> 135
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 caaaacatca gaggttgtca gactgcccta tcctctccaa atgaaatctt 450
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<210> 136
<211> 242
<212> PRT
<213> Homo Sapien

<400> 136
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20 25 30
Ala Glu Gly Ser Gly Gly Ser Gly Val Gly Ile Gly Asp Arg Phe
35 40 45
Lys Ile Glu Gly Arg Ala Val Val Pro Gly Val Lys Pro Gln Asp
50 55 60
Trp Ile Ser Ala Ala Arg Val Leu Val Asp Gly Glu Glu His Val
65 70 75
Gly Phe Leu Lys Thr Asp Gly Ser Phe Val Val His Asp Ile Pro
80 85 90
Ser Gly Ser Tyr Val Val Glu Val Val Ser Pro Ala Tyr Arg Phe
95 100 105
Asp Pro Val Arg Val Asp Ile Thr Ser Lys Gly Lys Met Arg Ala
110 115 120
Arg Tyr Val Asn Tyr Ile Lys Thr Ser Glu Val Val Arg Leu Pro
125 130 135
Tyr Pro Leu Gln Met Lys Ser Ser Gly Pro Pro Ser Tyr Phe Ile
140 145 150
Lys Arg Glu Ser Trp Gly Trp Thr Asp Phe Leu Met Asn Pro Met
155 160 165
Val Met Met Met Val Leu Pro Leu Leu Ile Phe Val Leu Leu Pro
170 175 180
Lys Val Val Asn Thr Ser Asp Pro Asp Met Arg Arg Glu Met Glu
185 190 195
Gln Ser Met Asn Met Leu Asn Ser Asn His Glu Leu Pro Asp Val
200 205 210
Ser Glu Phe Met Thr Arg Leu Phe Ser Ser Lys Ser Ser Gly Lys
215 220 225
Ser Ser Ser Gly Ser Ser Lys Thr Gly Lys Ser Gly Ala Gly Lys
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Arg Arg

<210> 137

<211> 1571

<212> DNA

<213> Homo Sapien

<400> 137

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 ccaaaaaaaaa aaaaaaaaaa a 1571

<210> 138
 <211> 261
 <212> PRT
 <213> Homo Sapien

<400> 138
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 Thr Cys Trp Ala Leu Thr Ala Glu Pro Gly Trp Gly Gln Asn Lys
 35 40 45
 Gly Ala Thr Thr Cys Ala Thr Asn Ser His Ser Asp Ser Glu Leu
 50 55 60
 Arg Pro Glu Ile Phe Ser Ser Arg Glu Ala Trp Gln Phe Phe Leu
 65 70 75
 Leu Leu Trp Ser Pro Asp Phe Arg Pro Lys Met Lys Ala Ser Ser
 80 85 90
 Leu Ala Phe Ser Leu Leu Ser Ala Ala Phe Tyr Leu Leu Trp Thr
 95 100 105
 Pro Ser Thr Gly Leu Lys Thr Leu Asn Leu Gly Ser Cys Val Ile
 110 115 120
 Ala Thr Asn Leu Gln Glu Ile Arg Asn Gly Phe Ser Glu Ile Arg
 125 130 135
 Gly Ser Val Gln Ala Lys Asp Gly Asn Ile Asp Ile Arg Ile Leu
 140 145 150
 Arg Arg Thr Glu Ser Leu Gln Asp Thr Lys Pro Ala Asn Arg Cys
 155 160 165
 Cys Leu Leu Arg His Leu Leu Arg Leu Tyr Leu Asp Arg Val Phe
 170 175 180
 Lys Asn Tyr Gln Thr Pro Asp His Tyr Thr Leu Arg Lys Ile Ser
 185 190 195
 Ser Leu Ala Asn Ser Phe Leu Thr Ile Lys Lys Asp Leu Arg Leu
 200 205 210
 Ser His Ala His Met Thr Cys His Cys Gly Glu Glu Ala Met Lys
 215 220 225
 Lys Tyr Ser Gln Ile Leu Ser His Phe Glu Lys Leu Glu Pro Gln
 230 235 240

Ala Ala Val Val Lys Ala Leu Gly Glu Leu Asp Ile Leu Leu Gln
 245 250 255

Trp Met Glu Glu Thr Glu
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<210> 139

<211> 2395

<212> DNA

<213> Homo Sapien

<400> 139

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 tcgctacctg ttgcgtagcg atcgaggtgc tagggatcgc ggtcttcctt 150
 cggggattct tcccggctcc cggttcgttcc tctgccagag cggaacacgg 200
 agcggagccc ccagcgcccc aaccctcggc tggagccagt tctaactgga 250
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<210> 140
 <211> 310
 <212> PRT
 <213> Homo Sapien

<400> 140
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 Glu Val Leu Gly Ile Ala Val Phe Leu Arg Gly Phe Phe Pro Ala
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 Pro Val Arg Ser Ser Ala Arg Ala Glu His Gly Ala Glu Pro Pro
 35 40 45
 Ala Pro Glu Pro Ser Ala Gly Ala Ser Ser Asn Trp Thr Thr Leu
 50 55 60
 Pro Pro Pro Leu Phe Ser Lys Val Val Ile Val Leu Ile Asp Ala

65					70					75				
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met
				80					85					90
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe
				95					100					105
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys
				110					115					120
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg
				125					130					135
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln
				140					145					150
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr
				155					160					165
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr
				170					175					180
Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
				185					190					195
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile
				200					205					210
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser
				215					220					225
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
				230					235					240
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
				245					250					255
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly
				260					265					270
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val
				275					280					285
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro
				290					295					300
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln					
				305					310					

<210> 141

<211> 754

<212> DNA

<213> Homo Sapien

<400> 141

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tgatgttact gctgctgttg gagtacaact tccctataga aaacaactgc 150

cagcacctta agaccactca caccttcaga gtgaagaact taaacccgaa 200

gaaattcagc attcatgacc aggatcacaa agtactgggc ctggactctg 250
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<210> 142
 <211> 193
 <212> PRT
 <213> Homo Sapien

<400> 142
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 Asn Pro Lys Lys Phe Ser Ile His Asp Gln Asp His Lys Val Leu
 35 40 45
 Val Leu Asp Ser Gly Asn Leu Ile Ala Val Pro Asp Lys Asn Tyr
 50 55 60
 Ile Arg Pro Glu Ile Phe Phe Ala Leu Ala Ser Ser Leu Ser Ser
 65 70 75
 Ala Ser Ala Glu Lys Gly Ser Pro Ile Leu Leu Gly Val Ser Lys
 80 85 90
 Gly Glu Phe Cys Leu Tyr Cys Asp Lys Asp Lys Gly Gln Ser His
 95 100 105
 Pro Ser Leu Gln Leu Lys Lys Glu Lys Leu Met Lys Leu Ala Ala
 110 115 120
 Gln Lys Glu Ser Ala Arg Arg Pro Phe Ile Phe Tyr Arg Ala Gln
 125 130 135
 Val Gly Ser Trp Asn Met Leu Glu Ser Ala Ala His Pro Gly Trp
 140 145 150
 Phe Ile Cys Thr Ser Cys Asn Cys Asn Glu Pro Val Gly Val Thr
 155 160 165

Asp Lys Phe Glu Asn Arg Lys His Ile Glu Phe Ser Phe Gln Pro
 170 175 180

Val Cys Lys Ala Glu Met Ser Pro Ser Glu Val Ser Asp
 185 190

<210> 143
 <211> 961
 <212> DNA
 <213> Homo Sapien

<400> 143
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 aaaaaaaaaa a 961

<210> 144
 <211> 147
 <212> PRT
 <213> Homo Sapien

<400> 144
 Met Leu Gly Leu Pro Trp Lys Gly Gly Leu Ser Trp Ala Leu Leu
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 Leu Leu Leu Leu Gly Ser Gln Ile Leu Leu Ile Tyr Ala Trp His
 20 25 30

Phe	His	Glu	Gln	Arg	Asp	Cys	Asp	Glu	His	Asn	Val	Met	Ala	Arg	
				35					40					45	
Tyr	Leu	Pro	Ala	Thr	Val	Glu	Phe	Ala	Val	His	Thr	Phe	Asn	Gln	
				50					55					60	
Gln	Ser	Lys	Asp	Tyr	Tyr	Ala	Tyr	Arg	Leu	Gly	His	Ile	Leu	Asn	
				65					70					75	
Ser	Trp	Lys	Glu	Gln	Val	Glu	Ser	Lys	Thr	Val	Phe	Ser	Met	Glu	
				80					85					90	
Leu	Leu	Leu	Gly	Arg	Thr	Arg	Cys	Gly	Lys	Phe	Glu	Asp	Asp	Ile	
				95					100					105	
Asp	Asn	Cys	His	Phe	Gln	Glu	Ser	Thr	Glu	Leu	Asn	Asn	Thr	Phe	
				110					115					120	
Thr	Cys	Phe	Phe	Thr	Ile	Ser	Thr	Arg	Pro	Trp	Met	Thr	Gln	Phe	
				125					130					135	
Ser	Leu	Leu	Asn	Lys	Thr	Cys	Leu	Glu	Gly	Phe	His				
				140					145						

<210> 145
 <211> 1157
 <212> DNA
 <213> Homo Sapien

<400> 145
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 gctgctcttc agccacctct ctgcggtcca gacgaggggc atcaagcaca 150
 gaatcaagtg gaaccggaag gccctgcccc gcaactgccc gatcactgag 200
 gcccaggtgg ctgagaaccg cccgggagcc ttcatacaagc aaggccgcaa 250
 gctcgacatt gacttcggag ccgagggcaa caggtactac gaggccaact 300
 actggcagtt ccccgatggc atccactaca acggctgctc tgaggctaata 350
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 gaaccagggg gagttccaga agccagacaa caagctccac cagcaggtgc 450
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 ctgccttctg gctttgatct ggctcatggg gaaataagct tgccaggagg 600
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 gagctgaagt actgcaccca gcatcaccag ctagaaagtg gcagagccag 1000
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 agagctgtct ggtgatcact ttatgtctca cagggaccca catccaaaca 1100
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 cacctga 1157

<210> 146
 <211> 176
 <212> PRT
 <213> Homo Sapien

<400> 146
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 20 25 30
 His Arg Ile Lys Trp Asn Arg Lys Ala Leu Pro Ser Thr Ala Gln
 35 40 45
 Ile Thr Glu Ala Gln Val Ala Glu Asn Arg Pro Gly Ala Phe Ile
 50 55 60
 Lys Gln Gly Arg Lys Leu Asp Ile Asp Phe Gly Ala Glu Gly Asn
 65 70 75
 Arg Tyr Tyr Glu Ala Asn Tyr Trp Gln Phe Pro Asp Gly Ile His
 80 85 90
 Tyr Asn Gly Cys Ser Glu Ala Asn Val Thr Lys Glu Ala Phe Val
 95 100 105
 Thr Gly Cys Ile Asn Ala Thr Gln Ala Ala Asn Gln Gly Glu Phe
 110 115 120
 Gln Lys Pro Asp Asn Lys Leu His Gln Gln Val Leu Trp Arg Leu
 125 130 135
 Val Gln Glu Leu Cys Ser Leu Lys His Cys Glu Phe Trp Leu Glu
 140 145 150
 Arg Gly Ala Gly Leu Arg Val Thr Met His Gln Pro Val Leu Leu
 155 160 165
 Cys Leu Leu Ala Leu Ile Trp Leu Met Val Lys
 170 175

<210> 147
 <211> 333
 <212> DNA
 <213> Homo Sapien

<400> 147
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tccagagtct catttcctga tgatttatag actcaaagaa aactcatggt 100
 cagaagctct cttctcttct ggctcctct ctgtcttctt tccctctttc 150
 ttcttatttt aattagtagc atctactcag agtcatgcaa gctggaaatc 200
 tttcattttg cttgtcagtg gggtaggtca ctgagtctta gtttttattt 250
 tttgaaattt caactttcag attcaggggg tacatgtgaa ggtttgtttt 300
 atgagtatat tgcgatgatgc tgaggtttgg ggt 333

<210> 148
 <211> 73
 <212> PRT
 <213> Homo Sapien

<400> 148
 Met Phe Arg Ser Ser Leu Leu Phe Trp Pro Pro Leu Cys Leu Leu
 1 5 10 15
 Ser Leu Phe Leu Leu Ile Leu Ile Ser Ser Ile Tyr Ser Glu Ser
 20 25 30
 Cys Lys Leu Glu Ile Phe His Phe Ala Cys Gln Trp Gly Arg Ser
 35 40 45
 Leu Ser Leu Ser Phe Tyr Phe Leu Lys Phe Gln Leu Ser Asp Ser
 50 55 60
 Gly Gly Thr Cys Glu Gly Leu Phe Tyr Glu Tyr Ile Ala
 65 70

<210> 149
 <211> 1893
 <212> DNA
 <213> Homo Sapien

<400> 149
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 tctacctgga gacttgactc ccgcgcgcc caaccctgct tatcccttga 100
 ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc cctctctccg 150
 cccacacccc accctcctgg ctcttctgt ttttactcct ccttttcatt 200
 cataacaaaa gctacagctc caggagccca gcgccgggct gtgacccaag 250
 ccgagcgtgg aagaatgggg ttctcggga ccggcacttg gattctggtg 300
 ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaaagaca 350
 atctctacat aatagagaat taagtgcaga aagacctttg aatgaacaga 400
 ttgctgaagc agaagaagac aagattaaaa aaacatatcc tccagaaaac 450
 aagccaggtc agagcaacta ttcttttgtt gataacttga acctgctaaa 500
 ggcaataaca gaaaaggaaa aaattgagaa agaaagacaa tctataagaa 550
 gctcccact tgataataag ttgaatgtgg aagatgttga ttcaaccaag 600


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aatcgaaaac tgatcgatga ttatgactct actaagagtg gattggatca 650
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aatgacagag cctgtgttga caagattgtt tctaaactac ttaatctcgg 800
ccttatcaca gaaagccaag cacatacact ggaagatgaa gtagcagagg 850
ttttacaaaa attaattctca aaggaagcca acaattatga ggaggatccc 900
aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950
agtgactcca atggcgacaa ttcaagatgg tcttgctaag ggagaaaaacg 1000
atgaaacagt atctaacaca ttaaccttga caaatggctt ggaaaggaga 1050
actaaaacct acagtgaaga caactttgag gaactccaat atttcccaa 1100
tttctatgcg ctactgaaaa gtattgattc agaaaaagaa gcaaaagaga 1150
aagaaacact gattactatc atgaaaaacac tgattgactt tgtgaagatg 1200
atggtgaaat atggaacaat atctccagaa gaagggtgtt cctaccttga 1250
aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300
atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400
atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450
gaaagacaga tgaacccaaa ggaaaaacag aagcctattt ggaagccatc 1500
agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550
agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600
cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650
cgcatttata gcagcctgta aaaatggcaa aagatccagg agtctttcaa 1700
ctgtttcaga aaacataata tagcttaaaa cacttctaata tctgtgatta 1750
aaattttttg acccaagggt tattagaaag tgctgaattt acagtagtta 1800
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aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

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<210> 150
<211> 468
<212> PRT
<213> Homo Sapien

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<400> 150
Met Gly Phe Leu Gly Thr Gly Thr Trp Ile Leu Val Leu Val Leu
  1           5           10           15
Pro Ile Gln Ala Phe Pro Lys Pro Gly Gly Ser Gln Asp Lys Ser
          20           25           30

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Leu	His	Asn	Arg	Glu	Leu	Ser	Ala	Glu	Arg	Pro	Leu	Asn	Glu	Gln		35	40		45
Ile	Ala	Glu	Ala	Glu	Glu	Asp	Lys	Ile	Lys	Lys	Thr	Tyr	Pro	Pro		50	55		60
Glu	Asn	Lys	Pro	Gly	Gln	Ser	Asn	Tyr	Ser	Phe	Val	Asp	Asn	Leu		65	70		75
Asn	Leu	Leu	Lys	Ala	Ile	Thr	Glu	Lys	Glu	Lys	Ile	Glu	Lys	Glu		80	85		90
Arg	Gln	Ser	Ile	Arg	Ser	Ser	Pro	Leu	Asp	Asn	Lys	Leu	Asn	Val		95	100		105
Glu	Asp	Val	Asp	Ser	Thr	Lys	Asn	Arg	Lys	Leu	Ile	Asp	Asp	Tyr		110	115		120
Asp	Ser	Thr	Lys	Ser	Gly	Leu	Asp	His	Lys	Phe	Gln	Asp	Asp	Pro		125	130		135
Asp	Gly	Leu	His	Gln	Leu	Asp	Gly	Thr	Pro	Leu	Thr	Ala	Glu	Asp		140	145		150
Ile	Val	His	Lys	Ile	Ala	Ala	Arg	Ile	Tyr	Glu	Glu	Asn	Asp	Arg		155	160		165
Ala	Val	Phe	Asp	Lys	Ile	Val	Ser	Lys	Leu	Leu	Asn	Leu	Gly	Leu		170	175		180
Ile	Thr	Glu	Ser	Gln	Ala	His	Thr	Leu	Glu	Asp	Glu	Val	Ala	Glu		185	190		195
Val	Leu	Gln	Lys	Leu	Ile	Ser	Lys	Glu	Ala	Asn	Asn	Tyr	Glu	Glu		200	205		210
Asp	Pro	Asn	Lys	Pro	Thr	Ser	Trp	Thr	Glu	Asn	Gln	Ala	Gly	Lys		215	220		225
Ile	Pro	Glu	Lys	Val	Thr	Pro	Met	Ala	Ala	Ile	Gln	Asp	Gly	Leu		230	235		240
Ala	Lys	Gly	Glu	Asn	Asp	Glu	Thr	Val	Ser	Asn	Thr	Leu	Thr	Leu		245	250		255
Thr	Asn	Gly	Leu	Glu	Arg	Arg	Thr	Lys	Thr	Tyr	Ser	Glu	Asp	Asn		260	265		270
Phe	Glu	Glu	Leu	Gln	Tyr	Phe	Pro	Asn	Phe	Tyr	Ala	Leu	Leu	Lys		275	280		285
Ser	Ile	Asp	Ser	Glu	Lys	Glu	Ala	Lys	Glu	Lys	Glu	Thr	Leu	Ile		290	295		300
Thr	Ile	Met	Lys	Thr	Leu	Ile	Asp	Phe	Val	Lys	Met	Met	Val	Lys		305	310		315
Tyr	Gly	Thr	Ile	Ser	Pro	Glu	Glu	Gly	Val	Ser	Tyr	Leu	Glu	Asn		320	325		330
Leu	Asp	Glu	Met	Ile	Ala	Leu	Gln	Thr	Lys	Asn	Lys	Leu	Glu	Lys		335	340		345

Asn	Ala	Thr	Asp	Asn	Ile	Ser	Lys	Leu	Phe	Pro	Ala	Pro	Ser	Glu	
				350					355					360	
Lys	Ser	His	Glu	Glu	Thr	Asp	Ser	Thr	Lys	Glu	Glu	Ala	Ala	Lys	
				365					370					375	
Met	Glu	Lys	Glu	Tyr	Gly	Ser	Leu	Lys	Asp	Ser	Thr	Lys	Asp	Asp	
				380					385					390	
Asn	Ser	Asn	Pro	Gly	Gly	Lys	Thr	Asp	Glu	Pro	Lys	Gly	Lys	Thr	
				395					400					405	
Glu	Ala	Tyr	Leu	Glu	Ala	Ile	Arg	Lys	Asn	Ile	Glu	Trp	Leu	Lys	
				410					415					420	
Lys	His	Asp	Lys	Lys	Gly	Asn	Lys	Glu	Asp	Tyr	Asp	Leu	Ser	Lys	
				425					430					435	
Met	Arg	Asp	Phe	Ile	Asn	Lys	Gln	Ala	Asp	Ala	Tyr	Val	Glu	Lys	
				440					445					450	
Gly	Ile	Leu	Asp	Lys	Glu	Glu	Ala	Glu	Ala	Ile	Lys	Arg	Ile	Tyr	
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Ser Ser Leu

<210> 151
 <211> 2598
 <212> DNA
 <213> Homo Sapien

<400> 151
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 ggagggctgc atgcagggaa ggtcattaaa ggtgaagaga tcagcgtggt 200
 cccaatcgg tggctggatg ccagcctgtc ccccgtcac ctgggtgtcc 250
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 aactagagc cagtgaacat catggagctc tatcttggtg ccaaggaatc 350
 caagagcttc accttctacc ggcgggacat ggggctcacc tccagcttcg 400
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 gaactccctg ggcagagcca gtcgggtga ggggtgagtg gaggagaccc 600
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 gatttggagc tcagtccacg gtcctcccc actggatggt gctactgctg 750

tggaaccttg taaaaacccat gtgggggtaaa ctgggaataa catgaaaaga 800
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 tgtgcaggag agggaggtgg tcatagagtc agggatctat ggcccttggc 1000
 ccagccccac ccccttccct ttaatcctgc cactgtcata tgctaccttt 1050
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 cagaagaaat ggctcgagct cagaagataa aagataagta gggatatgtg 1150
 atcctctttt aaaaacccaa gatacaatca aaatcccaga tgctgggtctc 1200
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 ggtctaactt gttatgcagc aatagataaa taatatgcag agaaagag 2598

<210> 152
 <211> 155
 <212> PRT
 <213> Homo Sapien

<400> 152
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 Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly
 20 25 30
 Leu His Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val
 35 40 45
 Pro Asn Arg Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly
 50 55 60
 Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu
 65 70 75
 Pro Thr Leu Thr Leu Glu Pro Val Asn Ile Met Glu Leu Tyr Leu
 80 85 90
 Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met
 95 100 105
 Gly Leu Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp Phe
 110 115 120
 Leu Cys Thr Val Pro Glu Ala Asp Gln Pro Val Arg Leu Thr Gln
 125 130 135
 Leu Pro Glu Asn Gly Gly Trp Asn Ala Pro Ile Thr Asp Phe Tyr
 140 145 150
 Phe Gln Gln Cys Asp
 155

<210> 153
 <211> 1152
 <212> DNA
 <213> Homo Sapien

<400> 153
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 ccctggccac cagctgcctc cttctcttgg ccctcttggg acagggagga 150
 gcagctgcgc ccatcagctc ccaactgcagg cttgacaagt ccaacttcca 200

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 ggagtcagta tgagtgagcg ctgctatctg atgaagcagg tgctgaactt 350
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 cattttattt atatcatttt attaatatgg atttatttat agaaacatca 1050
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cc 1152

<210> 154
 <211> 179
 <212> PRT
 <213> Homo Sapien

<400> 154
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 35 40 45
 Asn Phe Gln Gln Pro Tyr Ile Thr Asn Arg Thr Phe Met Leu Ala
 50 55 60
 Lys Glu Ala Ser Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile
 65 70 75
 Gly Glu Lys Leu Phe His Gly Val Ser Met Ser Glu Arg Cys Tyr
 80 85 90

Leu	Met	Lys	Gln	Val	Leu	Asn	Phe	Thr	Leu	Glu	Glu	Val	Leu	Phe	95	100	105
Pro	Gln	Ser	Asp	Arg	Phe	Gln	Pro	Tyr	Met	Gln	Glu	Val	Val	Pro	110	115	120
Phe	Leu	Ala	Arg	Leu	Ser	Asn	Arg	Leu	Ser	Thr	Cys	His	Ile	Glu	125	130	135
Gly	Asp	Asp	Leu	His	Ile	Gln	Arg	Asn	Val	Gln	Lys	Leu	Lys	Asp	140	145	150
Thr	Val	Lys	Lys	Leu	Gly	Glu	Ser	Gly	Glu	Ile	Lys	Ala	Ile	Gly	155	160	165
Glu	Leu	Asp	Leu	Leu	Phe	Met	Ser	Leu	Arg	Asn	Ala	Cys	Ile		170	175	

<210> 155
 <211> 1320
 <212> DNA
 <213> Homo Sapien

<400> 155
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 cccagcatgt accaggtcag tgcagagggc tgcctgaggg ctgtgctgag 150
 agggagagga gcagagatgc tgctgagggt ggagggaggc caagctgccca 200
 ggtttggggc tggggggccaa gtggagttag aaactgggat cccaggggga 250
 ggggtgcagat gagggagcga cccagattag gtgaggacag ttctctcatt 300
 agccttttcc tacagggtgtg tgcattcttg gcaatggtca tgggaaccca 350
 cacctacagc cactggccca gctgctgccc cagcaaaggg caggacacct 400
 ctgaggagct gctgaggtgg agcactgtgc ctgtgcctcc cctagagcct 450
 gctaggccca accgccaccc agagtctgtg agggccagtg aagatggacc 500
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 tgaaccggct cccccaggac ctgtaccacg cccgttgctt gtgcccgcac 600
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 ttgccatgaa gggccaggat gccagatgc ttggcccctg tgaagtgtg 900
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gctggtgtcc tgtcattttc tctcaggaaa ggttttcaaa gttctgcccc 1050
 tttctggagg ccaccactcc tgtctcttcc tcttttccca tcccctgcta 1100
 ccctggcccc gcacaggcac tttctagata tttccccctt gctggagaag 1150
 aaagagcccc tggttttatt tgtttgttta ctcatcactc agtgagcatc 1200
 tactttgggt gcattctagt gtagttacta gtcttttgac atggatgatt 1250
 ctgaggagga agctgttatt gaatgtatag agatttatcc aaataaatat 1300
 ctttatttaa aaatgaaaaa 1320

<210> 156
 <211> 177
 <212> PRT
 <213> Homo Sapien

<400> 156
 Met Arg Glu Arg Pro Arg Leu Gly Glu Asp Ser Ser Leu Ile Ser
 1 5 10 15
 Leu Phe Leu Gln Val Val Ala Phe Leu Ala Met Val Met Gly Thr
 20 25 30
 His Thr Tyr Ser His Trp Pro Ser Cys Cys Pro Ser Lys Gly Gln
 35 40 45
 Asp Thr Ser Glu Glu Leu Leu Arg Trp Ser Thr Val Pro Val Pro
 50 55 60
 Pro Leu Glu Pro Ala Arg Pro Asn Arg His Pro Glu Ser Cys Arg
 65 70 75
 Ala Ser Glu Asp Gly Pro Leu Asn Ser Arg Ala Ile Ser Pro Trp
 80 85 90
 Arg Tyr Glu Leu Asp Arg Asp Leu Asn Arg Leu Pro Gln Asp Leu
 95 100 105
 Tyr His Ala Arg Cys Leu Cys Pro His Cys Val Ser Leu Gln Thr
 110 115 120
 Gly Ser His Met Asp Pro Arg Gly Asn Ser Glu Leu Leu Tyr His
 125 130 135
 Asn Gln Thr Val Phe Tyr Arg Arg Pro Cys His Gly Glu Lys Gly
 140 145 150
 Thr His Lys Gly Tyr Cys Leu Glu Arg Arg Leu Tyr Arg Val Ser
 155 160 165
 Leu Ala Cys Val Cys Val Arg Pro Arg Val Met Gly
 170 175

<210> 157
 <211> 1515
 <212> DNA
 <213> Homo Sapien

<400> 157
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cgtaccccgga gagccgaccg ttcaatgtgg ctctgaaact gggccatctc 100
 cagagtggat gctacaacat gatctaatacc ccggagactt gagggacctc 150
 cgagtagaac ctgttacaac tagtggtgca acaggggact attcaatttt 200
 gatgaatgta agctgggtac tccgggcaga tgccagcatc cgcttggtga 250
 aggccaccaa gatttggtg acgggcaaaa gcaacttcca gtcctacagc 300
 tgtgtgaggt gcaattacac agaggccttc cagactcaga ccagaccctc 350
 tgggtggtaaa tggacatttt cctacatcgg ctccctgtga gagctgaaca 400
 cagtctattt cattggggcc cataatatcc ctaatgcaaa tatgaatgaa 450
 gatggccctt ccatgtctgt gaatttcacc tcaccagggt gcctagacca 500
 cataatgaaa tataaaaaaa agtgtgtcaa ggccggaagc ctgtgggatc 550
 cgaacatcac tgcttgtaag aagaatgagg agacagtaga agtgaacttc 600
 acaaccactc ccctgggaaa cagatacatg gctcttatcc aacacagcac 650
 tatcatcggg ttttctcagg tgtttgagcc acaccagaag aaacaaacgc 700
 gagcttcagt ggtgattcca gtgactgggg atagtgaagg tgctacggtg 750
 cagctgactc catattttcc tacttggtggc agcgactgca tccgacataa 800
 aggaacagtt gtgctctgcc cacaaacagg cgtccctttc cctctggata 850
 acaacaaaag caagccggga ggctggctgc ctctcctcct gctgtctctg 900
 ctggtggcca catgggtgct ggtggcaggg atctatctaa tgtggaggca 950
 cgaaaggatc aagaagactt ccttttctac caccacacta ctgcccccca 1000
 ttaaggttct tgtgggtttac ccatctgaaa tatgtttcca tcacacaatt 1050
 tgttacttca ctgaatttct tcaaaacatc tgcagaagtg aggtcatcct 1100
 tgaaaagtgg cagaaaaaga aaatagcaga gatgggtcca gtgcagtggc 1150
 ttgccactca aaagaaggca gcagacaaaag tcgtcttcct tctttccaat 1200
 gacgtcaaca gtgtgtgoga tgggtacctgt ggcaagagcg agggcagtcc 1250
 cagtgagaac tctcaagacc tcttccccct tgcttttaac cttttctgca 1300
 gtgatctaag aagccagatt catctgcaca aatacgtggg ggtctacttt 1350
 agagagattg atacaaaaga cgattacaat gctctcagtg tctgccccaa 1400
 gtaccacctc atgaaggatg ccaactgctt ctgtgcagaa cttctccatg 1450
 tcaagcagca ggtgtcagca ggaaaaagat cacaagcctg ccacgatggc 1500
 tgctgctcct tgtag 1515

<210> 158
 <211> 502
 <212> PRT

<213> Homo Sapien

<400> 158

Met	Ser	Leu	Val	Leu	Leu	Ser	Leu	Ala	Ala	Leu	Cys	Arg	Ser	Ala	
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Val	Pro	Arg	Glu	Pro	Thr	Val	Gln	Cys	Gly	Ser	Glu	Thr	Gly	Pro	
				20					25					30	
Ser	Pro	Glu	Trp	Met	Leu	Gln	His	Asp	Leu	Ile	Pro	Gly	Asp	Leu	
				35					40					45	
Arg	Asp	Leu	Arg	Val	Glu	Pro	Val	Thr	Thr	Ser	Val	Ala	Thr	Gly	
				50					55					60	
Asp	Tyr	Ser	Ile	Leu	Met	Asn	Val	Ser	Trp	Val	Leu	Arg	Ala	Asp	
				65					70					75	
Ala	Ser	Ile	Arg	Leu	Leu	Lys	Ala	Thr	Lys	Ile	Cys	Val	Thr	Gly	
				80					85					90	
Lys	Ser	Asn	Phe	Gln	Ser	Tyr	Ser	Cys	Val	Arg	Cys	Asn	Tyr	Thr	
				95					100					105	
Glu	Ala	Phe	Gln	Thr	Gln	Thr	Arg	Pro	Ser	Gly	Gly	Lys	Trp	Thr	
				110					115					120	
Phe	Ser	Tyr	Ile	Gly	Phe	Pro	Val	Glu	Leu	Asn	Thr	Val	Tyr	Phe	
				125					130					135	
Ile	Gly	Ala	His	Asn	Ile	Pro	Asn	Ala	Asn	Met	Asn	Glu	Asp	Gly	
				140					145					150	
Pro	Ser	Met	Ser	Val	Asn	Phe	Thr	Ser	Pro	Gly	Cys	Leu	Asp	His	
				155					160					165	
Ile	Met	Lys	Tyr	Lys	Lys	Lys	Cys	Val	Lys	Ala	Gly	Ser	Leu	Trp	
				170					175					180	
Asp	Pro	Asn	Ile	Thr	Ala	Cys	Lys	Lys	Asn	Glu	Glu	Thr	Val	Glu	
				185					190					195	
Val	Asn	Phe	Thr	Thr	Thr	Pro	Leu	Gly	Asn	Arg	Tyr	Met	Ala	Leu	
				200					205					210	
Ile	Gln	His	Ser	Thr	Ile	Ile	Gly	Phe	Ser	Gln	Val	Phe	Glu	Pro	
				215					220					225	
His	Gln	Lys	Lys	Gln	Thr	Arg	Ala	Ser	Val	Val	Ile	Pro	Val	Thr	
				230					235					240	
Gly	Asp	Ser	Glu	Gly	Ala	Thr	Val	Gln	Leu	Thr	Pro	Tyr	Phe	Pro	
				245					250					255	
Thr	Cys	Gly	Ser	Asp	Cys	Ile	Arg	His	Lys	Gly	Thr	Val	Val	Leu	
				260					265					270	
Cys	Pro	Gln	Thr	Gly	Val	Pro	Phe	Pro	Leu	Asp	Asn	Asn	Lys	Ser	
				275					280					285	
Lys	Pro	Gly	Gly	Trp	Leu	Pro	Leu	Leu	Leu	Leu	Ser	Leu	Leu	Val	
				290					295					300	

Ala Thr Trp Val	Leu Val Ala Gly Ile	Tyr Leu Met Trp Arg	His
305		310	315
Glu Arg Ile Lys	Lys Thr Ser Phe Ser	Thr Thr Thr Leu Leu	Pro
320		325	330
Pro Ile Lys Val	Leu Val Val Tyr Pro	Ser Glu Ile Cys Phe	His
335		340	345
His Thr Ile Cys	Tyr Phe Thr Glu Phe	Leu Gln Asn His Cys	Arg
350		355	360
Ser Glu Val Ile	Leu Glu Lys Trp Gln	Lys Lys Lys Ile Ala	Glu
365		370	375
Met Gly Pro Val	Gln Trp Leu Ala Thr	Gln Lys Lys Ala Ala	Asp
380		385	390
Lys Val Val Phe	Leu Leu Ser Asn Asp	Val Asn Ser Val Cys	Asp
395		400	405
Gly Thr Cys Gly	Lys Ser Glu Gly Ser	Pro Ser Glu Asn Ser	Gln
410		415	420
Asp Leu Phe Pro	Leu Ala Phe Asn Leu	Phe Cys Ser Asp Leu	Arg
425		430	435
Ser Gln Ile His	Leu His Lys Tyr Val	Val Val Tyr Phe Arg	Glu
440		445	450
Ile Asp Thr Lys	Asp Asp Tyr Asn Ala	Leu Ser Val Cys Pro	Lys
455		460	465
Tyr His Leu Met	Lys Asp Ala Thr Ala	Phe Cys Ala Glu Leu	Leu
470		475	480
His Val Lys Gln	Gln Val Ser Ala Gly	Lys Arg Ser Gln Ala	Cys
485		490	495
His Asp Gly Cys	Cys Ser Leu		
500			

<210> 159
 <211> 535
 <212> DNA
 <213> Homo Sapien

<400> 159
 agccaccagc gcaacatgac agtgaagacc ctgcatggcc cagccatggt 50
 caagtacttg ctgctgtcga tattggggct tgcctttctg agtgaggcgg 100
 cagctcggaa aatccccaaa gtaggacata cttttttcca aaagcctgag 150
 agttgcccg cgtgtgccagg aggtagtatg aagcttgaca ttggcatcat 200
 caatgaaaac cagcgcggtt ccatgtcacg taacatcgag agccgctcca 250
 cctccccctg gaattacact gtcacttggg accccaaccg gtaccctctg 300
 gaagttgtac aggcccagt taggaacttg ggctgcatca atgctcaagg 350
 aaaggaagac atctccatga attccgttcc catccagcaa gagaccctgg 400

tcgtccggag gaagcaccaa ggctgctctg tttctttcca gttggagaag 450
 gtgctggtga ctggttgctg cacctgcgtc acccctgtca tccaccatgt 500
 gcagtaagag gtgcatatcc actcagctga agaag 535

<210> 160
 <211> 163
 <212> PRT
 <213> Homo Sapien

<400> 160
 Met Thr Val Lys Thr Leu His Gly Pro Ala Met Val Lys Tyr Leu
 1 5 10 15
 Leu Leu Ser Ile Leu Gly Leu Ala Phe Leu Ser Glu Ala Ala Ala
 20 25 30
 Arg Lys Ile Pro Lys Val Gly His Thr Phe Phe Gln Lys Pro Glu
 35 40 45
 Ser Cys Pro Pro Val Pro Gly Gly Ser Met Lys Leu Asp Ile Gly
 50 55 60
 Ile Ile Asn Glu Asn Gln Arg Val Ser Met Ser Arg Asn Ile Glu
 65 70 75
 Ser Arg Ser Thr Ser Pro Trp Asn Tyr Thr Val Thr Trp Asp Pro
 80 85 90
 Asn Arg Tyr Pro Ser Glu Val Val Gln Ala Gln Cys Arg Asn Leu
 95 100 105
 Gly Cys Ile Asn Ala Gln Gly Lys Glu Asp Ile Ser Met Asn Ser
 110 115 120
 Val Pro Ile Gln Gln Glu Thr Leu Val Val Arg Arg Lys His Gln
 125 130 135
 Gly Cys Ser Val Ser Phe Gln Leu Glu Lys Val Leu Val Thr Val
 140 145 150
 Gly Cys Thr Cys Val Thr Pro Val Ile His His Val Gln
 155 160

<210> 161
 <211> 2380
 <212> DNA
 <213> Homo Sapien

<400> 161
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 gtcaggactc ccaggacaga gagtgcacaa actaccagc acagcccct 100
 ccgccccctc tggaggctga agagggattc cagcccctgc caccacaga 150
 cacgggctga ctggggtgtc tgccccctt gggggggggc agcacagggc 200
 ctcaggcctg ggtgccacct ggcacctaga agatgctgt gccctggttc 250
 ttgctgtcct tggcactggg ccgaagccca gtggtccttt ctctggagag 300

gcttgtgggg cctcaggacg ctaccactg ctctccgggc ctctcctgcc 350
gcctctggga cagtgcata ctctgcctgc ctggggacat cgtgcctgct 400
ccgggccccg tgctggcgcc tacgcacctg cagacagagc tgggtgctgag 450
gtgccagaag gagaccgact gtgacctctg tctgcgtgtg gctgtccact 500
tggcctgtca tgggcactgg gaagagcctg aagatgagga aaagtttgga 550
ggagcagctg actcaggggt ggaggagcct aggaatgcct ctctccaggc 600
ccaagtcgtg ctctccttcc aggcctacc tactgcccgc tgcgtcctgc 650
tggaggtgca agtgctgct gcccttgtgc agtttggtca gtctgtgggc 700
tctgtggtat atgactgctt cgaggctgcc ctaggagtg aggtacgaat 750
ctggtcctat actcagccca ggtacgagaa ggaactcaac cacacacagc 800
agctgcctgc cctgccctgg ctcaacgtgt cagcagatgg tgacaacgtg 850
catctggttc tgaatgtctc tgaggagcag cacttcggcc tctccctgta 900
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ctggaccgca gatcattacc ttgaaccaca cagacctggt tcctgcctc 1000
tgtattcagg tgtggcctct ggaacctgac tccgttagga cgaacatctg 1050
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ttctcgagtt ccattgctg aaaggccacc ctaacctctg tgttcagggtg 1300
aacagctcgg agaagctgca gctgcaggag tgcttgtggg ctgactccct 1350
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acaacagatc cctctgtgcc ttggaacca gtggctgtac ttcactaccc 1450
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cctgcagtca ggccagtgtc tgcagctatg ggacgatgac ttgggagcgc 1550
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gatgactcgg gtttcgagcg cctggtgggc gccctggcgt cggccctgtg 1800
ccagctgccg ctgcgcgtgg ccgtagacct gtggagccgt cgtgaactga 1850
gcgcgcaggg gcccggtggt tggtttcacg cgcagcggcg ccagacctg 1900

caggagggcg gcgtggtggt cttgctcttc tctcccgggtg cgggtggcgct 1950
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 cgcacgacgc cttccgcgcc tcgctcagct gcgtgctgcc cgacttcttg 2050
 cagggccggg cgcgccgag ctacgtgggg gcctgcttcg acaggctgct 2100
 ccacccggac gccgtaccgc cccttttccg caccgtgccc gtcttcacac 2150
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 ccgcgttccg ggcggctcca agagagagcg gagcaagtgt cccgggccct 2250
 tcagccagcc ctggatagct acttccatcc cccggggact cccgcgccgg 2300
 gacgcgggggt gggaccaggg gcgggacctg gggcggggga cgggacttaa 2350
 ataaaggcag acgctgtttt tctaaaaaaaa 2380

<210> 162
 <211> 705
 <212> PRT
 <213> Homo Sapien

<400> 162
 Met Pro Val Pro Trp Phe Leu Leu Ser Leu Ala Leu Gly Arg Ser
 1 5 10 15
 Pro Val Val Leu Ser Leu Glu Arg Leu Val Gly Pro Gln Asp Ala
 20 25 30
 Thr His Cys Ser Pro Gly Leu Ser Cys Arg Leu Trp Asp Ser Asp
 35 40 45
 Ile Leu Cys Leu Pro Gly Asp Ile Val Pro Ala Pro Gly Pro Val
 50 55 60
 Leu Ala Pro Thr His Leu Gln Thr Glu Leu Val Leu Arg Cys Gln
 65 70 75
 Lys Glu Thr Asp Cys Asp Leu Cys Leu Arg Val Ala Val His Leu
 80 85 90
 Ala Val His Gly His Trp Glu Glu Pro Glu Asp Glu Glu Lys Phe
 95 100 105
 Gly Gly Ala Ala Asp Ser Gly Val Glu Glu Pro Arg Asn Ala Ser
 110 115 120
 Leu Gln Ala Gln Val Val Leu Ser Phe Gln Ala Tyr Pro Thr Ala
 125 130 135
 Arg Cys Val Leu Leu Glu Val Gln Val Pro Ala Ala Leu Val Gln
 140 145 150
 Phe Gly Gln Ser Val Gly Ser Val Val Tyr Asp Cys Phe Glu Ala
 155 160 165
 Ala Leu Gly Ser Glu Val Arg Ile Trp Ser Tyr Thr Gln Pro Arg
 170 175 180
 Tyr Glu Lys Glu Leu Asn His Thr Gln Gln Leu Pro Ala Leu Pro

	185	190	195
Trp Leu Asn Val	Ser Ala Asp Gly Asp	Asn Val His Leu Val	Leu
	200	205	210
Asn Val Ser Glu	Glu Gln His Phe Gly	Leu Ser Leu Tyr Trp	Asn
	215	220	225
Gln Val Gln Gly	Pro Pro Lys Pro Arg	Trp His Lys Asn Leu	Thr
	230	235	240
Gly Pro Gln Ile	Ile Thr Leu Asn His	Thr Asp Leu Val Pro	Cys
	245	250	255
Leu Cys Ile Gln	Val Trp Pro Leu Glu	Pro Asp Ser Val Arg	Thr
	260	265	270
Asn Ile Cys Pro	Phe Arg Glu Asp Pro	Arg Ala His Gln Asn	Leu
	275	280	285
Trp Gln Ala Ala	Arg Leu Arg Leu Leu	Thr Leu Gln Ser Trp	Leu
	290	295	300
Leu Asp Ala Pro	Cys Ser Leu Pro Ala	Glu Ala Ala Leu Cys	Trp
	305	310	315
Arg Ala Pro Gly	Gly Asp Pro Cys Gln	Pro Leu Val Pro Pro	Leu
	320	325	330
Ser Trp Glu Asn	Val Thr Val Asp Lys	Val Leu Glu Phe Pro	Leu
	335	340	345
Leu Lys Gly His	Pro Asn Leu Cys Val	Gln Val Asn Ser Ser	Glu
	350	355	360
Lys Leu Gln Leu	Gln Glu Cys Leu Trp	Ala Asp Ser Leu Gly	Pro
	365	370	375
Leu Lys Asp Asp	Val Leu Leu Leu Glu	Thr Arg Gly Pro Gln	Asp
	380	385	390
Asn Arg Ser Leu	Cys Ala Leu Glu Pro	Ser Gly Cys Thr Ser	Leu
	395	400	405
Pro Ser Lys Ala	Ser Thr Arg Ala Ala	Arg Leu Gly Glu Tyr	Leu
	410	415	420
Leu Gln Asp Leu	Gln Ser Gly Gln Cys	Leu Gln Leu Trp Asp	Asp
	425	430	435
Asp Leu Gly Ala	Leu Trp Ala Cys Pro	Met Asp Lys Tyr Ile	His
	440	445	450
Lys Arg Trp Ala	Leu Val Trp Leu Ala	Cys Leu Leu Phe Ala	Ala
	455	460	465
Ala Leu Ser Leu	Ile Leu Leu Leu Lys	Lys Asp His Ala Lys	Gly
	470	475	480
Trp Leu Arg Leu	Leu Lys Gln Asp Val	Arg Ser Gly Ala Ala	Ala
	485	490	495
Arg Gly Arg Ala	Ala Leu Leu Leu Tyr	Ser Ala Asp Asp Ser	Gly

	500		505		510
Phe Glu Arg Leu	Val Gly Ala Leu Ala	Ser Ala Leu Cys Gln Leu			
	515		520		525
Pro Leu Arg Val	Ala Val Asp Leu Trp	Ser Arg Arg Glu Leu Ser			
	530		535		540
Ala Gln Gly Pro	Val Ala Trp Phe His	Ala Gln Arg Arg Gln Thr			
	545		550		555
Leu Gln Glu Gly	Gly Val Val Val Leu	Leu Phe Ser Pro Gly Ala			
	560		565		570
Val Ala Leu Cys	Ser Glu Trp Leu Gln	Asp Gly Val Ser Gly Pro			
	575		580		585
Gly Ala His Gly	Pro His Asp Ala Phe	Arg Ala Ser Leu Ser Cys			
	590		595		600
Val Leu Pro Asp	Phe Leu Gln Gly Arg	Ala Pro Gly Ser Tyr Val			
	605		610		615
Gly Ala Cys Phe	Asp Arg Leu Leu His	Pro Asp Ala Val Pro Ala			
	620		625		630
Leu Phe Arg Thr	Val Pro Val Phe Thr	Leu Pro Ser Gln Leu Pro			
	635		640		645
Asp Phe Leu Gly	Ala Leu Gln Gln Pro	Arg Ala Pro Arg Ser Gly			
	650		655		660
Arg Leu Gln Glu	Arg Ala Glu Gln Val	Ser Arg Ala Leu Gln Pro			
	665		670		675
Ala Leu Asp Ser	Tyr Phe His Pro Pro	Gly Thr Pro Ala Pro Gly			
	680		685		690
Arg Gly Val Gly	Pro Gly Ala Gly Pro	Gly Ala Gly Asp Gly Thr			
	695		700		705

<210> 163
 <211> 2478
 <212> DNA
 <213> Homo Sapien

<400> 163
 gtcagtgcgg gaggcgggtc agccaccaag atgactgaca ggttcagctc 50
 tctgcagcac actaccctca agccacctga tgtgacctgt atctccaaag 100
 tgagatcgat tcagatgatt gttcatccta cccccacgcc aatccgtgca 150
 ggcgatggcc accggctaac cctggaagac atcttccatg acctgttcta 200
 ccacttagag ctccaggtca accgcaccta ccaaatgcac cttggaggga 250
 agcagagaga atatgagttc ttcggcctga ccctgacac agagtctcctt 300
 ggcaccatca tgatttgctg tcccacctgg gcccaaggaga gtgcccccta 350
 catgtgccga gtgaagacac tgccagaccg gacatggacc tactccttct 400

ccggagcctt cctgttctcc atgggcttcc tcgtcgcagt actctgctac 450
 ctgagctaca gatatgtcac caagccgcct gcacctccca actccctgaa 500
 cgtccagega gtccctgactt tccagccgct gcgcttcac caggagcacg 550
 tcctgatccc tgtctttgac ctacgcggcc ccagcagtct ggcccagcct 600
 gtccagtact ccagatcag ggtgtctgga ccaggggagc ccgcaggagc 650
 tccacagcgg catagcctgt ccgagatcac ctacttaggg cagccagaca 700
 tctccatcct ccagccctcc aacgtgccac ctccccagat cctctcccca 750
 ctgtcctatg ccccaaacgc tgcccctgag gtcgggcccc catcctatgc 800
 acctcaggtg acccccgaag ctcaattccc attctacgcc ccacaggcca 850
 tctctaaggt ccagccttcc tcctatgccc ctcaagccac tccggacagc 900
 tggcctccct cctatggggt atgcatggaa ggttctggca aagactcccc 950
 cactgggaca ctttctagtc ctaaaccacct taggcctaaa ggtcagcttc 1000
 agaaagagcc accagctgga agctgcatgt taggtggcct ttctctgcag 1050
 gaggtgacct ccttggtctat ggaggaatcc caagaagcaa aatcattgca 1100
 ccagcccctg gggatttgca cagacagaac atctgacca aatgtgctac 1150
 acagtgggga ggaagggaca ccacagtacc taaagggccca gctccccctc 1200
 ctctcctcag tccagatcga gggccacccc atgtccctcc ctttgcaacc 1250
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 acctcctaac accatggatt caaagtgtc aggggaatttg cctctccttg 1800
 ccccatcct ggccagtttc acaatctagc tcgacagagc atgaggcccc 1850
 tgcctcttct gtcattgttc aaaggtggga agagagcctg gaaaagaacc 1900
 aggcctggaa aagaaccaga aggaggctgg gcagaaccag aacaacctgc 1950
 acttctgcc aaggccaggc cagcaggacg gcaggactct agggaggggt 2000

gtggcctgca gctcattccc agccagggca actgcctgac gttgcacgat 2050
 ttcagcttca ttcctctgat agaacaaagc gaaatgcagg tccaccaggg 2100
 agggagacac acaagccttt tctgcaggca ggagtttcag accctatcct 2150
 gagaatgggg tttgaaagga aggtgagggc tgtggcccct ggacgggtac 2200
 aataacacac tgtactgatg tcacaacttt gcaagctctg ccttgggttc 2250
 agcccatctg ggctcaaatt ccagcctcac cactcacaag ctgtgtgact 2300
 tcaaacaaat gaaatcagtg ccagaaacct cggtttcctc atctgtaatg 2350
 tggggatcat aacacctacc tcatggagtt gtggtgaaga tgaaatgaag 2400
 tcatgtcttt aaagtgctta atagtgcctg gtacatgggc agtgcccaat 2450
 aaacggtagc tatttaaaaa aaaaaaaaa 2478

<210> 164
 <211> 574
 <212> PRT
 <213> Homo Sapien

<400> 164
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 35 40 45
 Glu Gly Thr Pro Asp Thr Val Tyr Ser Ile Glu Tyr Lys Thr Tyr
 50 55 60
 Gly Glu Arg Asp Trp Val Ala Lys Lys Gly Cys Gln Arg Ile Thr
 65 70 75
 Arg Lys Ser Cys Asn Leu Thr Val Glu Thr Gly Asn Leu Thr Glu
 80 85 90
 Leu Tyr Tyr Ala Arg Val Thr Ala Val Ser Ala Gly Gly Arg Ser
 95 100 105
 Ala Thr Lys Met Thr Asp Arg Phe Ser Ser Leu Gln His Thr Thr
 110 115 120
 Leu Lys Pro Pro Asp Val Thr Cys Ile Ser Lys Val Arg Ser Ile
 125 130 135
 Gln Met Ile Val His Pro Thr Pro Thr Pro Ile Arg Ala Gly Asp
 140 145 150
 Gly His Arg Leu Thr Leu Glu Asp Ile Phe His Asp Leu Phe Tyr
 155 160 165
 His Leu Glu Leu Gln Val Asn Arg Thr Tyr Gln Met His Leu Gly
 170 175 180
 Gly Lys Gln Arg Glu Tyr Glu Phe Phe Gly Leu Thr Pro Asp Thr

185					190					195				
Glu	Phe	Leu	Gly	Thr	Ile	Met	Ile	Cys	Val	Pro	Thr	Trp	Ala	Lys
				200					205					210
Glu	Ser	Ala	Pro	Tyr	Met	Cys	Arg	Val	Lys	Thr	Leu	Pro	Asp	Arg
				215					220					225
Thr	Trp	Thr	Tyr	Ser	Phe	Ser	Gly	Ala	Phe	Leu	Phe	Ser	Met	Gly
				230					235					240
Phe	Leu	Val	Ala	Val	Leu	Cys	Tyr	Leu	Ser	Tyr	Arg	Tyr	Val	Thr
				245					250					255
Lys	Pro	Pro	Ala	Pro	Pro	Asn	Ser	Leu	Asn	Val	Gln	Arg	Val	Leu
				260					265					270
Thr	Phe	Gln	Pro	Leu	Arg	Phe	Ile	Gln	Glu	His	Val	Leu	Ile	Pro
				275					280					285
Val	Phe	Asp	Leu	Ser	Gly	Pro	Ser	Ser	Leu	Ala	Gln	Pro	Val	Gln
				290					295					300
Tyr	Ser	Gln	Ile	Arg	Val	Ser	Gly	Pro	Arg	Glu	Pro	Ala	Gly	Ala
				305					310					315
Pro	Gln	Arg	His	Ser	Leu	Ser	Glu	Ile	Thr	Tyr	Leu	Gly	Gln	Pro
				320					325					330
Asp	Ile	Ser	Ile	Leu	Gln	Pro	Ser	Asn	Val	Pro	Pro	Pro	Gln	Ile
				335					340					345
Leu	Ser	Pro	Leu	Ser	Tyr	Ala	Pro	Asn	Ala	Ala	Pro	Glu	Val	Gly
				350					355					360
Pro	Pro	Ser	Tyr	Ala	Pro	Gln	Val	Thr	Pro	Glu	Ala	Gln	Phe	Pro
				365					370					375
Phe	Tyr	Ala	Pro	Gln	Ala	Ile	Ser	Lys	Val	Gln	Pro	Ser	Ser	Tyr
				380					385					390
Ala	Pro	Gln	Ala	Thr	Pro	Asp	Ser	Trp	Pro	Pro	Ser	Tyr	Gly	Val
				395					400					405
Cys	Met	Glu	Gly	Ser	Gly	Lys	Asp	Ser	Pro	Thr	Gly	Thr	Leu	Ser
				410					415					420
Ser	Pro	Lys	His	Leu	Arg	Pro	Lys	Gly	Gln	Leu	Gln	Lys	Glu	Pro
				425					430					435
Pro	Ala	Gly	Ser	Cys	Met	Leu	Gly	Gly	Leu	Ser	Leu	Gln	Glu	Val
				440					445					450
Thr	Ser	Leu	Ala	Met	Glu	Glu	Ser	Gln	Glu	Ala	Lys	Ser	Leu	His
				455					460					465
Gln	Pro	Leu	Gly	Ile	Cys	Thr	Asp	Arg	Thr	Ser	Asp	Pro	Asn	Val
				470					475					480
Leu	His	Ser	Gly	Glu	Glu	Gly	Thr	Pro	Gln	Tyr	Leu	Lys	Gly	Gln
				485					490					495
Leu	Pro	Leu	Leu	Ser	Ser	Val	Gln	Ile	Glu	Gly	His	Pro	Met	Ser

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Leu Pro Leu Gln	Pro Pro Ser Gly	Pro Cys Ser	Pro Ser Asp	Gln	
	515	520		525	
Gly Pro Ser Pro	Trp Gly Leu Leu	Glu Ser Leu Val	Cys Pro	Lys	
	530	535		540	
Asp Glu Ala Lys	Ser Pro Ala Pro	Glu Thr Ser Asp	Leu Glu	Gln	
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Pro Thr Glu Leu	Asp Ser Leu Phe	Arg Gly Leu Ala	Leu Thr	Val	
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Gln Trp Glu Ser					

<210> 165
 <211> 1060
 <212> DNA
 <213> Homo Sapien

<400> 165
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<210> 166

<211> 303

<212> PRT

<213> Homo Sapien

<400> 166

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				20					25					30	
Arg	Phe	Ser	Asp	Leu	Lys	Val	Cys	Gly	Asp	Glu	Glu	Cys	Ser	Met	
				35					40					45	
Leu	Met	Tyr	Arg	Gly	Lys	Ala	Leu	Glu	Asp	Phe	Thr	Gly	Pro	Asp	
				50					55					60	
Cys	Arg	Phe	Val	Asn	Phe	Lys	Lys	Gly	Asp	Asp	Val	Tyr	Val	Tyr	
				65					70					75	
Tyr	Lys	Leu	Ala	Gly	Gly	Ser	Leu	Glu	Leu	Trp	Ala	Gly	Ser	Val	
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Glu	His	Ser	Phe	Gly	Tyr	Phe	Pro	Lys	Asp	Leu	Ile	Lys	Val	Leu	
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His	Lys	Tyr	Thr	Glu	Glu	Glu	Leu	His	Ile	Pro	Ala	Asp	Glu	Thr	
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Asp	Phe	Val	Cys	Phe	Glu	Gly	Gly	Arg	Asp	Asp	Phe	Asn	Ser	Tyr	
				125					130					135	
Asn	Val	Glu	Glu	Leu	Leu	Gly	Ser	Leu	Glu	Leu	Glu	Asp	Ser	Val	
				140					145					150	
Pro	Glu	Glu	Ser	Lys	Lys	Ala	Glu	Glu	Val	Ser	Gln	His	Arg	Glu	
				155					160					165	
Lys	Ser	Pro	Glu	Glu	Ser	Arg	Gly	Arg	Glu	Leu	Asp	Pro	Val	Pro	
				170					175					180	
Glu	Pro	Glu	Ala	Phe	Arg	Ala	Asp	Ser	Glu	Asp	Gly	Glu	Gly	Ala	
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Phe	Ser	Glu	Ser	Thr	Glu	Gly	Leu	Gln	Gly	Gln	Pro	Ser	Ala	Gln	
				200					205					210	
Glu	Ser	His	Pro	His	Thr	Ser	Gly	Pro	Ala	Ala	Asn	Ala	Gln	Gly	
				215					220					225	
Val	Gln	Ser	Ser	Leu	Asp	Thr	Phe	Glu	Glu	Ile	Leu	His	Asp	Lys	
				230					235					240	
Leu	Lys	Val	Pro	Gly	Ser	Glu	Ser	Arg	Thr	Gly	Asn	Ser	Ser	Pro	
				245					250					255	
Ala	Ser	Val	Glu	Arg	Glu	Lys	Thr	Asp	Ala	Tyr	Lys	Val	Leu	Lys	
				260					265					270	

Thr	Glu	Met	Ser	Gln	Arg	Gly	Ser	Gly	Gln	Cys	Val	Ile	His	Tyr
				275					280					285

Ser	Lys	Gly	Phe	Arg	Trp	His	Gln	Asn	Leu	Ser	Leu	Phe	Tyr	Lys
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Asp Cys Phe

<210> 167

<211> 2570

<212> DNA

<213> Homo Sapien

<400> 167

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<210> 168

<211> 273

<212> PRT

<213> Homo Sapien

<400> 168

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Cys Phe Ala Asp	Phe Lys His Pro Cys	Tyr Lys Met Ala Tyr	Phe
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His Glu Leu Ser	Ser Arg Val Ser Phe	Gln Glu Ala Arg Leu	Ala
	50	55	60
Cys Glu Ser Glu	Gly Gly Val Leu Leu	Ser Leu Glu Asn Glu	Ala
	65	70	75
Glu Gln Lys Leu	Ile Glu Ser Met Leu	Gln Asn Leu Thr Lys	Pro
	80	85	90
Gly Thr Gly Ile	Ser Asp Gly Asp Phe	Trp Ile Gly Leu Trp	Arg
	95	100	105
Asn Gly Asp Gly	Gln Thr Ser Gly Ala	Cys Pro Asp Leu Tyr	Gln
	110	115	120
Trp Ser Asp Gly	Ser Asn Ser Gln Tyr	Arg Asn Trp Tyr Thr	Asp
	125	130	135
Glu Pro Ser Cys	Gly Ser Glu Lys Cys	Val Val Met Tyr His	Gln
	140	145	150
Pro Thr Ala Asn	Pro Gly Leu Gly Gly	Pro Tyr Leu Tyr Gln	Trp
	155	160	165
Asn Asp Asp Arg	Cys Asn Met Lys His	Asn Tyr Ile Cys Lys	Tyr
	170	175	180
Glu Pro Glu Ile	Asn Pro Thr Ala Pro	Val Glu Lys Pro Tyr	Leu
	185	190	195
Thr Asn Gln Pro	Gly Asp Thr His Gln	Asn Val Val Val Thr	Glu
	200	205	210
Ala Gly Ile Ile	Pro Asn Leu Ile Tyr	Val Val Ile Pro Thr	Ile
	215	220	225
Pro Leu Leu Leu	Leu Ile Leu Val Ala	Phe Gly Thr Cys Cys	Phe
	230	235	240
Gln Met Leu His	Lys Ser Lys Gly Arg	Thr Lys Thr Ser Pro	Asn
	245	250	255
Gln Ser Thr Leu	Trp Ile Ser Lys Ser	Thr Arg Lys Glu Ser	Gly
	260	265	270

Met Glu Val

<210> 169

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 169
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<210> 170

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 170

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